THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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Notes from Eastern Ohio and West Virginia.

STEUBENVILLE, OHIO, April 18, 1865.

EDS. CO. GENT.—I left home chiefly for the purpose of attending the sale of horses and sheep advertised by Wm. H. Ladd, to take place at his late residence, near Richmond, Jefferson county, Ohio, on the 12th.

The weather, always an important element in reference to the success of sales of stock by auction, was quite unfavorable for several days preceding the sale, considerable rain having fallen, which made the hilly roads of this section almost impassible in places for carriages. The rain continued to the day of the sale, winding up, however, with a heavy shower in the forenoon. Still about 400 persons assembled, a fair proportion of whom evidently came to *buy* if they could at their own figures.

Mr. Ladd had previously sold his farm, and also sold to the purchaser of the farm his sheep, with the exception of about 50. These consisted mainly of the imported Infantado-Nigretti from Silesia and their descendants, and a few crosses of these with other families of Spanish sheep. The prices obtained may be considered, on the whole, satisfactory—the ewes (excepting lambs of last year) averaging something over $100 each. Some imported ewes, although 14 to 15 years old, with lambs at their sides, brought upwards of $100 each. The heavy, fine fleeces, now borne by these old sheep, and the size and vigor of their lambs demonstrate the strength of constitution which this family possesses. I never saw so much or such good wool on any sheep of their age. Some of the ewes that were two years old this spring brought $220 to $245 each, and one brought $301. The purchasers were from various portions of Ohio, and a few from western Pennsylvania and West Virginia.

It is gratifying to see that this valuable variety of sheep is appreciated. There is reason to believe that in the hands of men who will do them justice as to care and attention, they will prove very profitable. My observations among the flocks of the West lead me to think that the use of Silesian rams in many cases would be the readiest means of bringing the wool to a high standard of value. This remark is particularly applicable to grade merino flocks, or those in which purity of blood has not been adhered to. On such flocks the Silesians impress their characteristics very strongly.

Mr. Ladd has evidently bred his sheep with much judgment, as those bred by himself are fully equal to the imported stock. I am pleased to say that he has donated a fine ewe and lamb to the Michigan Agricultural College.

Mr. L.'s horses sold tolerably well. The mares brought from $200 to $500 each, and the young stock proportionate prices. The mares were mostly got by Champion Black Hawk and Black Hawk Second (formerly Champlain.) Only one of the stallions, Allen Sontag, was sold. He was struck off at the low price of $785. He is a horse of rather small size, but very compact, and firm in texture, and a splendid trotter. The other stallion, Provincial Chief, having been temporarily injured a short time since, was not offered. He is a very fine horse. There was not time to sell all the horses, and as those which Mr. L. least desired to part with were reserved till the last, six or eight of the very choicest remained on his hands, *and he is very willing to keep them.* They are very superior animals, as were many of those sold.

Although Mr. Ladd has sold his farm and the greater portion of his stock, I am glad to learn from him that he does not propose to give up stock-breeding altogether at present. He will be located for this season on the farm of his brother, James D. Ladd, adjoining that which he lately sold. His ultimate plans are not yet fully formed.

The farm lately sold by Mr. L., as well as that of his brother, and others in the same neighborhood, is very fine for grazing, the soil readily becoming covered with a sward not surpassed by that of the "blue grass region" of Kentucky. But the country is very broken, and the roads very bad for a considerable portion of the year, while the nearest point on a railroad is four miles. These and some other causes induced Mr. L. to make a change. Mr. J. D. L. is engaged in business in Iowa, and may conclude to sell his farm. The farm sold by Mr. W. H. L., consisting of about 300 acres, brought $21,000. The stock sold brought about $10,000.

Since attending the sale above mentioned, I have been across the river, and have seen some of the noted

flocks of sheep of West Virginia. I first called on the Hon. Jesse Edgington, at Holliday's Cove. His flock has long been celebrated as one of the best in the country. More than 20 years ago his wool was spoken of by Mr. Samuel Lawrence, then of Lowell, Mass., as of very superior quality. He commenced the breeding of sheep with stock obtained from Messrs. Wells & Dickinson of Steubenville, and for nearly forty years adhered entirely to that blood. Within the last three years he has infused the blood of the Silesian sheep into a portion of his flock, and still later he has used a Vermont Merino ram. But the older sheep of the flock are still of the Wells & Dickinson blood. They are very handsome sheep, not large, but showing fair constitution, and a striking uniformity of type. It seems to be the almost universal testimony of the sheep owners of this section, that the Wells & Dickinson stock, as it was in its pristine purity and excellence, has never been surpassed by any other introduced here — quantity and quality and value of fleece, being the criterion. The cross of this stock with the Silesian is good; in most cases the fleece is thickened without any deterioration in quality of staple. The cross with the Vermont Merino gives a more yolky fleece of greater weight, but not so fine.

Mr. Edgington has donated a splendid ewe of the old stock to the Michigan Agricultural College. He keeps about two thousand sheep, half of which are at the home farm, and the others at a farm several miles distant. Mr. E. has reached a great age, but still manifests much interest in his sheep and farms. His nephew, John H. Veirs, Esq., has the general supervision of business affairs, while the experienced and intelligent shepherd, Mr. Hull, is careful to sustain the fame of the Edgington flock.

In company with Mr. Veirs I visited Talbot Hammond, Esq., some half-dozen miles from Wellsburgh, Brook Co., West Va. He has a flock of upwards of one thousand sheep. He began breeding sheep in 1822, with a few animals obtained from Messrs. Wells and Dickinson. Of late years he has made some crosses with the Silesian, but more with the Vermont Merino. At the present time a considerable portion of his flock may be said to be from a quarter to half of the latter blood. He has, however, selected his breeding stock with reference to preserving in a good degree the fineness of the old stock, and he has some very choice sheep—of good size, compact and handsome in form, with heavy and fine fleeces.

The character of all this region is admirably adapted to sheep. The country is very broken, having apparently been in the long lapse of ages, formed into sharp, small hills from an original plain. The soil is mostly tenacious limestone loam, very productive in grass, and good for all kinds of grain and fruit; but the unevenness of the surface renders cultivation by the plow expensive. It does not wash badly, however, as the soil seems to turn off water as though it was *greased*. The blue-grass (*Poa pratensis*) forms the principal herbage of the old pastures, and beautifully green, thick, and fine is the sward, even on the tops of the narrow ridges. But the roads over this broken country are about as *hard to travel* as any we read of. At this time they can scarcely be passed over with carriages, and horseback riding is resorted to by all who go from home. SANFORD HOWARD.

No. 36---THE APHIS ON HOPS.

An insect which had never been before observed in our country that I am aware, has, during the two past years, occurred in excessive numbers upon the leaves of the hop plants, whereby these years have been the most disastrous to the extensive hop growers in the central section of our State, which they have ever experienced. The hops in some yards have not been picked, and a portion of those which have been gathered in other yards, it is said, ought never to have been dried and put up for market, they were so small and worthless; while the best which have been grown have been of an inferior quality, the bitter principle on which their value depends, having been deficient, according to published reports, to the extent of from 15 to 25 per cent.

The newspapers and agricultural periodicals have contained several notices of this failure of the hop crop; and from the accounts which they have given, it would appear that there are three different maladies with which the hop vines of this country have recently been invaded—namely, the aphis or plant-louse, the honey-dew, and the black blight. The first of these, the aphis, is a soft, pale yellowish-green insect, not so large as the head of a pin, which fixes itself upon the underside of the leaf, and there remains stationary with its minute beak inserted into the leaf and sucking out its juices, and multiplying rapidly, whereby the whole under surface of the leaf becomes covered with these insects, crowded as closely together as they can stow themselves. The honey-dew appears on the upper surface of the leaves as a shining, clear and transparent fluid, sticky and resembling honey smeared over the surface. The black blight also occurs on the upper sides of the leaves, and resembles coal-dust sifted upon and adhering firmly to them, or the leaves look as though they had been held in the smoke of a chimney until they were coated over with soot. This blight is supposed to be a peculiar kind of fungus, growing from the leaves, analogous to the rust and smut in grain, and some of the newspaper correspondents occupy themselves wholly with an account of it, deeming it to be the principal cause of the failure of the crop, and taking little if any notice of the lice.

But the truth is, these three maladies of the hop vines are all one thing, differing only as cause and effect. If there were no plant-lice upon the hops, there would be no honey-dew and no black blight. I am so perfectly assured and certain of this that I do not hesitate to state it in this positive and unqualified manner. And I will now explain how these substances, the honey dew and the black blight come upon the leaves.

Each aphis has two little horns projecting from the hind part of its back, which horns are termed the honey tubes. From these tubes the fluid called honey-dew is ejected, in the form of minute drops like particles of dew, which falling upon the leaves underneath them, the upper surface of the leaves becomes coated over with this fluid, more or less copiously as the lice producing it are more or less numerous. And now, this deposit of honey-dew being exposed to the action of the atmosphere, and alternately wetted with the dews at night and dried by the sun by day, is gradually decomposed, changing from a clear, shining,

transparent fluid, to an opake, black substance resembling soot, and it is then the black blight. In this simple manner do we account for and explain these phenomena, these important maladies of the hop, about which so much has been said and some writers have attempted to display so much erudition. This honey-dew and black blight are not peculiar to the hop, both occurring upon various other kinds of vegetation when badly infested by plant-lice, as I have observed in very many instances.

This aphis proves on examination to be the species known to men of science as the *Aphis Humuli* or the Hop Aphis, an insect which has long been known in Europe as the worst foe with which the hop-growers there have to contend. Messrs. Kirby and Spence in their Entomology, (p. 135, American edition,) speak of it as follows: "Upon the presence or absence of the Aphides, the crop of every year depends; so that the hop-grower is wholly at the mercy of these insects. They are the barometer that indicates the rise or fall of his wealth, as also of a very important branch of the government revenue, the difference in the amount of the duty on hops being often as much as £200,000 per annum, more or less, in proportion as this fly prevails, or the contrary."

The group or family of plant-lice are the most evanescent of all insects. Particular species of them will be excessively numerous one or two years, and will then rapidly diminish and disappear. Nay, the same season, we sometimes observe a plant or shrub having the stalks or leaves thronged with myriads of them, and in a week's time it may be that not one of them is remaining. This sudden disappearance is commonly caused by other insects destroying them. No other tribe of insects has so many enemies of their own class as the plant-lice. The different species of Coccinella or lady-bugs which are everywhere so common, live exclusively upon them, as do also the larvæ of the two-winged Syrphus flies and the four-winged Golden-eyed flies. Superadded to these destroyers they have also their internal parasites, exceedingly minute worms or maggots, residing within the bodies of the plant-lice, and there feeding upon until they kill them. Thus, wherever a tree or shrub becomes thronged with plant-lice, these destroyers become gathered among and around them, in rapidly augmenting numbers, and subsist upon until they have utterly exterminated them.

These several kinds of destroyers were everywhere common upon the hop vines the past year. I believe that in every instance in which leaves with these lice upon them were sent me by correspondents, I found one or more of these destroyers also upon the leaves; and in one box that came to me not one of the lice was remaining, all having been killed and devoured by some of their enemies which had happened to be enclosed in the box. These destroyers having been so common, it is quite probable that they have subdued these lice to such an extent that the approaching season the crop will be far less, if at all, damaged by them.

It is of great importance, however, that we should have some remedy, whereby, whenever these insects do fall upon the hop vines in such swarms as they have done the past two years, we may be able to promptly destroy them.

Washing and syringing plants with strong soap-suds has been often recommended for killing the plant lice upon them. I have recently been experimenting with this remedy, and have ascertained its effects to my satisfaction. It kills all the young, tender lice; but those which are grown up to maturity are so robust that they are not destroyed, even when the infested stems and leaves are immersed in a strong solution of soap.

There is one remedy, and one only, which we know to be perfectly sure and efficacious for instantly destroying the different species of plant lice. This is the smoke of tobacco. It operates like a charm. It never fails. But to apply it, it is necessary to place a box or barrel over the plant, burning the tobacco in a cup underneath, until this smoke has filled the enclosed space and has penetrated all the interstices between the leaves. Hereby rose bushes and other garden flowers and plants are readily freed from these pests. For applying it to trees or lofty plants like the hop supported on its pole, a large cloth thrown over and enveloping them will probably suffice, or some other convenient apparatus for this purpose may no doubt be devised, it being perfectly certain that every aphis in the hop-yard can be smothered, and the vines wholly cleansed of these vermin by this remedy.

East Greenwich, N. Y., April 8. ASA FITCH.

HOW TO MAKE HARD SOAP

The following recipe has been in use in my family for several years, and I never knew it to fail of producing a superior article for all purposes. I think if Mrs. H. D. will try it, she will be quite satisfied with the result: Five pounds of lime slaked in 12 quarts of boiling water, 5 pounds of sal soda dissolved in 12 quarts of water; mix it together and let it stand from 24 to 48 hours. Dip off all the water free from lime; add to it (the water) 3½ pounds of clean grease; let it boil up, then add 2 ounces of rosin, and boil the whole till it thickens, which usually takes 3 or 4 hours. Have ready a tub, or other convenient vessel, wet; pour in the soap, and when cold cut in bars, and dry well before using, and I will add that no one need be alarmed at the shrunken and shrivelled appearance it assumes during this process, or imagine that it has lost any of its good qualities because it does not look "as good as new."

We make a double rule—weight when green 42 pounds, and it cost us this year just 2⅛ cents per pound.

Amenia Union. MISS C. C. R.

EDS. CO. GENT.—I notice in the Co. GENT. of April 6th, an inquiry for a good method of making hard soap: Pour 4 gallons of boiling water over 6 pounds of washing soda and 3 pounds of unslaked lime. Stir the mixture well, and let it settle until perfectly clear. When clear, strain the water and put 6 pounds of fat with it, and boil 2 hours, stirring it most of the time. If it does not seem thin enough, put another gallon of water on the grounds, stir and drain off, and add as is wanted to the boiling mixture. Its thickness can be tested by occasionally putting a little on a plate to cool. Stir in a handful of salt just before taking off the fire. Have a tub ready soaked, to prevent the soap from sticking; pour it in and let it settle until solid.

Montgomery Co., N. Y. LIZZIE.

Onondaga County.—The Onondaga County Wool-Growers' Association will hold its first Exhibition at Syracuse, Thursday May 4th. A. F. WILCOX, President; H. D. L. SWEET, Secretary.

BREEDING HORSES.

Last autumn we had occasion to refer to the principles on which the breeding of the best Horses appears to be founded, so far as we are able to judge from the lessons of history and experience. These principles we should have attempted to elucidate at greater length, but for the confident anticipation that several correspondents possessing a long and thorough familiarity with the subject, would have taken it up—thus affording us the opportunity to supplement their contributions with any farther expression of our own views which might seem desirable. When we speak of the *best horses*, however, a word or two of explanation may be necessary.

Taking the *working horses* of this country as a whole, we have been inclined to think that for many purposes something of the greater weight characteristic of the British Agricultural Horse, such as the Clydesdale and Suffolk, or of the Norman in France, and particularly of that branch of this family called from its native district the *Percheron*, and of which several importations have been made here—might be most advantageously introduced. Several specimens of the last mentioned breed are now accessible to the farmers of Eastern Massachusetts, through the efforts of the Society for the Promotion of Agriculture in that State. The infusion of such blood must result in a class of animals much needed for the draught of heavy loads, both for city and country, and judicious breeding in that direction could hardly fail to yield satisfactory if not very brilliant success.

But the popular current with us is in favor of more activity and speed, even at some sacrifice in actual power. The farmer does not keep three or four teams expressly for heavy work, and one or two more for his carriage and for lighter loads. It is an aggregation of various kinds of excellence which most of our horse breeders are seeking. And in view of the demand before them, perhaps that may be considered the *best horse* for them to breed, from which they have some probabilty of winning laurels for remarkable speed—from which those not turning out so superior as trotters, have yet the size, elegance, spirit and bottom required before the carriage,—and, lastly, at least sure to command a much better price from practical men, if neither sold at fancy rates for stylish turnouts, nor taken on to the track, than the mongrel colts commonly reared for roadsters and farm use. This may seem to involve diverse requirements, and yet we have had horses here which would not fall far short of such a standard. How the excellence of the product may be rendered more certain for the breeder, is the great question.

A writer on the subject in several recent numbers of the Boston Cultivator, over the signature of "An American Breeder," whom we take to be a gentleman well known for his successful application in practice of the theories to which he refers,—adopts and strongly advocates two propositions laid down by the late W. H. Herbert, as proved and illustrated throughout the whole annals of horse-breeding here as well as abroad. The propositions are these:

1st. That the excellence of any and every breed of horses, and of every individual horse, consists in his possession of the greatest attainable degree of pure thorough blood, directly traceable to Barb, Arab or Turk, that is compatible with the weight, bulk, and strength in hauling, required for the purposes for which the horse is intended.

2d. That to be of advantage, the pure blood must come chiefly from the sire's, not from the dam's side.

Under the former of the two propositions, he contrasts the results obtained by "the judicious breeding of the Thorough-bred stallion upon mares of our common stock, selected for their large size and bone," with those cases in which "the breeder, through a mistaken economy, or want of foresight, stints his mares to undersized mongrel or grade stallions, because a small fee is demanded for service, or because the horse happens to be in convenient proximity to his farm, or, as is often the case, because the stallion, perhaps of unknown pedigree or blood, happens to be a chance trotter, and the breeder has visions of a foal which shall 'come down in the twenties,' and therefore command a price high up in the thousands."

This point he illustrates by the following incident from his own experience:

"A large, powerful, roomy mare, not thorough-bred, but having a large infusion of good blood, was stinted to a large-sized Morgan stallion, and the produce was a filly which, at 6 years of age, stood 14½ hands high and weighed 950 lbs. She was next stinted to a Black Hawk stallion of good size, and brought a filly, which at maturity stood 14 hands high and weighed about 900 lbs.; she was then covered by an imported thorough-bred stallion and produced a colt which at 6 years of age stands 16 hands high and weighs 1050 lbs.; she was again covered by the same horse and produced a filly now 5 years old, 16 hands high, weighing over 1000 lbs. Her next cover was by a very powerful thorough-bred stallion, and the produce a colt now coming 3 years old, stands very nearly 16 hands high; she was then, again, stinted to the imported thorough-bred first named, and brought a filly now nearly 2 years old, very large and promising. Her last foal, now coming 1 year old, was by another imported thorough-bred stallion, and bids fair to excel either of its predecessors in size and style. Here, now, is an instance of a mare producing foals by 5 different stallions, 2 mongrels or grades and 3 thorough-breds. The foals by the first-named, (both good stallions of their class, and both good trotters,) proving very inferior in point of size and style to those got by the thorough-breds, and, moreover, the trotting power of the foals got by each of the three thorough-bred stallions is decidedly superior to that displayed by either of the foals got by the former stallions. It may be said that this is an exceptional case, and what is termed by breeders a 'hit,' or 'nick,' but it would seem somewhat remarkable that the mare should 'hit' with three different thorough-bred stallions, while her foals by trotting stallions were inferior to herself."

As to the second proposition above laid down, we may simply take occasion to say that pure blood on the dam's side has often been the only cause to which great superiority of offspring could be ascribed—a fact, however, which should lead no one to neglect the proper requirements in the sire.

There are those, it is true, who entertain the impression that thorough-bred blood is antagonistic to trotting superiority. The article before us shows how unfounded in point of fact is that opinion, and cites the records to prove "that a very large proportion of the celebrated time-trotters in America are and were three-quarters or seven-eighths Thorough-bred, and some of the first class were Thorough-breds." The instances quoted in support of this statement we have not space to copy now, but may give room to them hereafter.

Prices of Wool and Mode of Marketing.

An article in the United States Economist of April 15th, discusses the probable future of the Wool market, taking the position that the clip of the current season must be worth at least the price of 1860, on a gold basis; that is, if the average of that season was 48 to 52 cts., that we may fairly expect, calculating gold at $1.42, a range of 68 to 73 cts. now. The quotations given in Walter Brown's New-York Wool Circular for May 1st, on "Three-quarters and Full-blood Merino fleece," are:

1. Wisconsin, Iowa, Vermont, and Illinois,... 55@65c.
2. New-York, Michigan, and Indiana,... .... 60@70c.
3. Ohio, Pennsylvania, and Virginia,..... ... 70@75c.

"Half-blood" and "Native and quarter-blood fleece" are quoted at the same figures respectively, under the first and third of these heads, and under the second, "New-York, Michigan, and Indiana," 3 cts. a pound higher than the full-blood. In other words the recent decline, from which there has already been some recovery, carried prices below what is likely to be the average value of the season, according to the Economist,—which journal, as the organ of manufacturers rather than of farmers, would not be likely to overrate the prospect in the farmer's favor. It warns farmers, in conclusion, not to rush all their wool upon the market in June, lest it should be sacrificed at a low figure.

The theory of the article seems to be that wool, taking its average value at 50 cts. in gold, will vary, in the price it brings in currency, as the premium on gold advances or declines,—in other words, that if gold should drop to 120 during the summer, wool would go down to 60, or if gold falls to par, to half-a-dollar. Now for all practical purposes, currency is worth to the farmer just as much as if gold was already at par, and it will be just as much a decline in price to him if wool falls because gold falls, as if it falls from any other reason, although he may be told that its specie value remains unchanged. That such a decline is to take place we are by no means asserting; there are so many disturbing causes combining to exert a possible effect on the future, that he must be a rash prophet indeed, who should venture to exercise that vocation at present.

It is curious to note the fluctuations in the wool market, from month to month, for a series of years. The Report of the Secretary of the Treasury for 1863 gives the monthly price current at New-York from 1825 down, a period of thirty nine years. If this is trustworthy, it would show that wool is subject to fluctuations of price more frequently in the winter than in the summer months. In June the price has been, as a rule, not very far from the average of the whole year; just at the average in 9 cases, somewhat above it in 22 cases, somewhat below it only in 8. In 1862, wool was at its lowest point in June, at its highest in October, but this was doubtless owing to the first rapid advance in gold, from 103 to 137, after which both wool and gold fell off temporarily in November and December.

We do not mean to intimate, however, that the advice given by the Economist is based on insufficient grounds. It would doubtless be preferable *not* to put the whole wool clip of the country so nearly simultaneously into the market. And yet it seems from the record quoted that the effect is less depressive than may have been generally supposed. The farmer can only judge from the daily and weekly developments of the season, as it advances, what his best policy will be as to the time of selling.

But on another point we have less room for doubt. Notwithstanding the lack of discrimination among wool buyers as to cleanliness and style of putting up fleeces, we cannot but think that a strict regard for honesty and neat appearance will *tell* in the long run. A man may be overborne by the usages of his neighborhood; but who would willingly select, for the purpose of wool growing, a locality having the reputation of half-washing its sheep, of bundling up the fleeces with a careless disregard of the amount of filth they might contain, and of entwining them with a superabundance of cordage? It is doubtless the case that buyers will seek or shun particular localities, according to the general character of the wool yielded, in these and other respects, and thus the innocent suffer from the sins of others, and here and there a dishonest man profit by the honor and neatness of his betters. Our local societies would find it fairly within their scope to do anything in their power to elevate the standard of public opinion, and to encourage a treatment of flocks and fleeces attractive to buyers and more profitable to the farmer himself. As to the organized system of puffery, claiming to be peculiarly "American" that style of Merinos which, as JOHN JOHNSTON pithily says, in a letter to the Genesee Farmer, "are constantly sweating something like gas tar" —we need not refer at length to this point at present. There can be nothing surer than that whatever would add to the profit of wool-growing by putting into the fleece that which is not wool, whether the same be dirty tags and string, or simply a natural "gas tar," must be only temporary in the advantage secured, if it be not indeed permanent in reducing the quality and injuring the reputation of those who adopt it. A large number of our exchanges have referred to this subject of late, one or two extracts from which appear in another column; and, among the numerous articles we have no space to copy, we may mention as calculated to carry with them great weight several of recent date in the New-York Tribune. And we may conclude by adopting the following from one of them, as applying with equal force to ourselves: "We have no personal interest in this matter, but are led conscientiously to advocate that course which we believe will be to the best interests of the farmers and the country at large."

RECIPE FOR HARD SOAP.

In answer to Mrs. H. D.'s inquiry for a recipe to make hard soap, I send the following, which I have used for four years:

6 lbs. soda—6 lbs. grease—5 lbs. lime—5 gallons water.

Dissolve the soda and lime with the required quantity of water, by boiling. When dissolved, allow the solution to settle—pour off perfectly clear, and add the grease to the *clear* solution. Boil until it becomes soap.

A solution can be purchased from druggists, which is prepared from the same compound by chemical action, which is very strong. In using which you take one pound of solution and two of fat, which makes three pounds of hard soap. I do not think the latter is any better, but it makes the soap harder, and consequently does not dry away so much as the other. The difference is, in the latter the water is evaporated before the soap is made; in the former it has to evaporate by gradual shrinkage. MRS. D. S.

PRUNING GRAPES---ASPARAGUS.

Will you please to give me your opinion relative to the proper time to prune grapevines? According to instructions from those who professed to understand pruning, I pruned a vine in autumn after the leaves had fallen, and the following spring it bled so profusely that that portion of the laterals left for fruiting died down to the main vine, and the vine had no fruit on it that year. The next autumn I concluded not to prune it at all, and the following year the vine had 30 lbs. of grapes on it.

I have some asparagus plants one year old from the seed, which I wish to transplant. Will you please give me the necessary directions for transplanting; if in drills, how far should the drills be apart, and what distance should the plants be apart in the drills?

Canada West. M. M. HOWARD.

Grapevines may be pruned in autumn, winter or spring. If pruned in autumn they should be well covered or protected, as cutting any plant always tends to make it tenderer. The same protection should be given if pruned in winter or before severe cold weather has passed. For the very hardiest varieties this protection may not be necessary. If pruned in spring after the buds have commenced swelling, "bleeding" will be produced; but the experience of extensive grape-raisers shows this to be no detriment. Vines pruned in autumn or winter do not bleed in spring. The case mentioned by our correspondent must be an unusual one, or from accidental causes. The death of the laterals was doubtless occasioned by the cold of winter, rendered more effective on the cut vine. The killing thus produced operated like a severe pruning, and the new shoots came up below, grew more vigorously in consequence, and bore the large crop mentioned.

Asparagus must be planted very early in spring, in order that it may become well established. It is common to trench the land unnecessarily deep, and set the plants too closely together for their ample development. A depth of 15 or 20 inches is sufficient—it should be made rich with manure well worked in—and the plants have at least one foot each way, or an equivalent space. If in drills 18 or 20 inches apart, they may be 7 or 8 inches in the drill.

Protecting Peach Trees through the Winter.

MESSRS. EDITORS—Your correspondent B., of St. Lawrence Co., N. Y., in the Co. GENT. of April 14th, makes some inquiries about protecting peach trees through our northern winters—and to do this proposes "planting the trees in boxes, so that they might be turned down in the fall and replaced in the spring," —and asks—"would laying the trees down and covering with mould, litter or boughs, be a safe way of wintering?"

There can be no doubt but peach trees planted in boxes as proposed, can be safely (blossom buds and all) carried through our winters, if the trees are laid on the ground, so as to be covered with snow or evergreen boughs. If covered with "mould or litter," there might be danger of smothering the branches of the trees. But what is to be gained by planting the trees in boxes, when the same favorable results can be obtained by planting the trees in the usual manner —that is, as standards? I have grown peaches continuously, every season, for the past six or seven years, and am having the promise of a most luxuriant crop the coming season, from about a dozen trees that were last fall bent down and fastened to the ground by hooked stakes—or otherwise fastened so as to be protected by the snow.

Most of my trees are seedlings, and of various ages, ranging from six to sixteen years old. The pits were planted in rows, and the first year made a growth from 18 to 36 inches. The following winter they were killed back to within six or eight inches of the ground. The tops were cut off as low as where killed back. Side shoots or branches came from the stumps, so that most of the trees have several main branches growing out at an angle of 30 to 40 degrees. The form of the trees is such that most of the branches can be easily bent to the ground and fastened there; and just so far as they are covered with snow during the most severe cold of our winters, they are sure to produce a heavy crop of peaches the following season. Last fall some of the trees were staked down before the leaves were shed. The result was, the wood of last year's growth was smothered—covered with a white mould. From this fact, I infer that it would not be safe to cover the tops of the "laid trees" with "mould or litter" as mentioned by B.

It has been a favorable winter for the peach tree here; I have some twenty or more that were left unprotected, and they will give a good blossom. I had two choice trees that could not be safely bent down. The tops were drawn together with a large twine, and then "done up" in three or four thicknesses of straw carpet. By this process I think about one-half the blossom buds were saved.

Those trees that were protected by the snow, blossom eight or ten days earlier than those left to "bide the colds of the past winter." It is said that sometimes the peach crop is cut off by spring frosts—but I have never suffered any such loss. If the centre of the blossom bud is green and fresh as late as the 20th of March, I have never failed in having peaches. In some past winters all the blossom buds of my peach trees have been killed, when at no time in the winter the mercury has fallen below 12 or 15° below zero. Again, in a winter when the mercury went down 28° below, at three several times, the following season I had a good crop of peaches. Whether we are to have a good crop of peaches or not, does not so much depend upon the degree of cold as marked by the thermometer, as it does upon the mature ripening of the new wood and blossom buds before the setting in of cold weather. B. tells us he has ordered a few trees, and proposes experimenting in the matter, which I suppose means that he is going to experiment in growing his trees in boxes. If he exercises "due care and diligence" in the matter, I have no doubt he may succeed in obtaining fair crops every year; but it seems to me it must require a good deal of labor to water the trees in the boxes. I hope he will furnish the readers of the Co. GENT., from time to time, the results of his trials in his attempts at growing peaches in boxes. And, in the meantime, I would suggest to him another experiment: Say procure a few small peach trees, plant them in a good location, cut off the tree within 8 or 10 inches of the ground, and side branches will spring from the stumps; train them nearly horizontally. In autumn, in some way confine them to the ground, and cover with evergreen boughs. Follow this method a few years, and I have no doubt he can grow good crops of fruit every year.

Warner, April 29, 1865. L. BARTLETT.

Early Spring Pasturage—Top-Dressing.

EDS. CO. GENT.—On this 8th day of April, 1865, I have turned my cows and heifers all to pasture, stabling them at night, and feeding them what hay they will eat. I took them from pasture on the 10th of December last, making two days short of four months we were without grass butter. This early and late pasturing has been my practice for some 10 or 12 years, and the time from grass has been about four months each winter. Some years they are out until Christmas or New-Years. The winter came in unusually early last Dec., and the spring is now unusually early. I feed hay in the fall before taking them up, or have a stack of good hay from which they can help themselves. We stable at night, and feed hay as long as the herd will eat it. I can find no slop so good or cheap as grass, and this saves some hay. The hay we give out of the four months in spring and fall I reckon about equal to one month, and so you may say that my cows are at hay, stalks, &c., about 150 days in that time. Each cow of good size will consume an equivalent of two tons of hay, a little over 26 pounds per day.

This early turning to pasture gives a good start to the milk, and frequently to the early butter, and I find this practice equally beneficial to steers intended for the butcher in summer or fall. The early fresh grass is nature's physic.

And now as to the effect upon the pasture. I have a field near the barn on which I turned my stock for the above time, and the pasture was the last season double, if not tribble, to what it was when I commenced the practice above stated. I do not, however, attribute the increase of the pasture to the fact of early turning on, but to show that it does not deteriorate under this course. The field had been seeded down some 4 or 5 years before I commenced this course, and the herbage has increased by pasturage. Why should it not? There has been deposited some 8 or 10 tons of manure, including the liquid, upon each acre per year, a respectable top dressing, and this is a mode of top-dressing which will last longer than any other, for in the evaporating season it will be soon covered with grass, and moreover a hard coating soon covers the dressing.

It is quite amusing in reading many of your correspondents' remarks on top-dressing, to find them now and then interlarded with inquiries, how shall pastures be enriched and improved when they have been top-dressed for ever so many years—can the favorite theory be good when pastures grow poor?

Top-dressing is now the favorite, and very good in its place. I have had my mind called to it more or less for forty years, but yet I must say the *why* and the *when* are proper inquiries. From October until March there is but little evaporation, and it may be spread during that time, especially on grass, when the early start will soon cover it. But most of our manure hereabouts is instantly put on corn ground, and that makes the compost bed for future crops. I have drawn and spread rotted manure in the fall, as fresh as it was made in the stable in winter or spring, and all plowed under in the spring for corn. On the rotted manure I find that the corn starts the best and has the larger stalk, but on the fresh the corn is better eared and the ground better for the succeeding crops. The best root crops I have ever raised have been when I applied fresh manure on grass in the spring and plowed it in directly, then let it lay and dry, and cultivate several times before planting. On one occasion I did this and sowed ruta bagas on the 4th of July, broadcast, which produced the very best crop I ever raised, but there is a risk in sowing so late of its being destroyed by drouth. Z. A. LELAND.

DOOR-YARD AND BOARD FENCES.

Some seven or eight years ago, at my suggestion, some persons in this town tried the plan described below for a picket fence, where it had been found impossible to keep posts in the ground by reason of frosts and high winds. The plan proved effectual in the complete avoidance of all the difficulties heretofore pertaining to all picket and other board fences, and at the same time is the cheapest good, and good looking fence that can be made, and one that will stay made for all time if only painted over once in five or six years. We take stone blocks 8 or 10 inches thick, 10 to 14 inches wide, 2½ feet long, making them thus heavy so the wind will not blow the fence over; we dress them off a little so as to give them a finished look; we then drill a hole 3 inches deep, 6 inches from one end, in which we put a ¾ inch round iron rod, 3½ feet long, and pour in melted brimstone, which holds it fast; a half-inch hole in the other end of the stone will take in a ⅝ rod for a brace, and an eye bent on the upper end, and put on to the iron post before the top rail is put on, braces it up firmly; ¾-inch holes being bored in the rails, they are put on to the posts to nail the pickets to, and two coats of paint leaves it to take care of itself. The stone may be 10 feet apart and the rails spliced where they happen to come.

On clay soils we dig holes a little larger than the stone—2½ feet deep, and fill in with sand to put the stone on; but for garden and farm fences it is not necessary as it will all come out right when the ground settles in the spring. Where a gentleman wishes to give his fence a more heavy look, he can have his iron posts about 10 inches long above his stone, and a hole bored in the bottom of his wood posts to slip on to the rod, and the rails attached to the posts to suit the taste of the owner. In this case the stone can be as far apart as the rails are long, 12 or 14 feet. We get the stone dressed, drilled, and delivered here for fifty cents each. No patent on it. S. MASSEY.

Watertown, N. Y., March 30, 1865.

P. S. Since the above was written, a farmer from an adjoining town gives it as his decided opinion, that the cheapest and best way they can fence their farms is to use the stone base, the iron post, and sawed pickets as above.

To go to England.—We learn (says the Ithaca Journal) "that Hon. Ezra Cornell has just sold to Chas. W. Harvey, Liverpool, England, his Short-Horn bull 3d Lord of Oxford, just 2 years old, for $3,000. He was purchased of Samuel Thorne of Duchess Co., at $1,000, when two weeks old. We learn that we are sending more bulls to England now than receiving therefrom."

To the foregoing we may add that Mr. Thorne, as we understand, has lately received liberal offers for several animals from his herd, to go to England, but we do not yet learn that these offers have been accepted.

INDIA WHEAT.

Why don't some of the many contributors of the Co. GENT. have one word to say about this crop? It is sometimes called buckwheat, but is no more like buckwheat than wheat is like rye. The kernel is shaped a little like it, but in its growth, quality and quantity, it is not like it. India wheat is fast growing in favor with farmers in this section, (the central portions of Vermont,) and I think it ought everywhere, and I will try and tell why: first, because it is a good crop and easily grown; second, because it can be grown on worn-out land; third, because the work can be done at the time of the year when we are the least busy; fourth, because "farmer Shiftless" can raise it when he can't raise anything else.

It is readily eaten by all animals. Sheep will eat it as well as oats or corn. Fowls prefer it to oats, particularly fowls that are laying; in fact no animal, not even man, will refuse it. It will grow on any land. My practice has been, when there is any land that does not yield much profit in hay, to turn it over, even if I cannot manure it for some time, and sow to India wheat. The turf will give us a good crop the first year, and after that, after I have hauled *all* my manure, take what there is left, and eight or ten loads spread on to the surface will give a good crop, and when you get ready to manure it you will find the land in the very best of order. Some people think it terrible to hoe after, but if rightly managed it is not. Let the ground be thoroughly harrowed after harvesting, and most of the kernels left will sprout, and there is no more trouble with them. Then in the spring, by following the old adage, "a stitch in time saves nine," you will easily keep ahead of it. It can be sown any time from the middle of May to the first of July, when it is the most convenient—perhaps the best time is about the middle of June. Care must be taken in harvesting because it threshes so easy; it should be cut and raked when wet; it should be raked into very small bunches, so that it may thoroughly dry, then should be hauled in a tight box and threshed while hot. C. *Williamstown, Vt.*

SEEDING DOWN WITH OATS.

MESSRS. EDS.—As a number of correspondents and others in the COUNTRY GENTLEMAN, seem to be somewhat interested at this time on the subject of seeding with oats, I will briefly give my experience. A portion of my farm lies in the Valley of the Canadice, and is alluvia of considerable depth and fertility, and the remainder is upland, not so fertile, still enough so for profit. I have sowed from two to four bushels of oats to the acre, and carefully noted the results. I used to have very poor success seeding with oats, for the reason that I sowed my oats too thick, but for the past four years I have not failed in a single instance of getting a good "catch." I now sow two bushels on my lowland and two and a half on my upland, of oats to the acre, as early as the ground is dry enough to work well, and put on 14 quarts of timothy and 2 quarts of clover to the acre if for meadow, but for pasture on upland, 8 or 10 quarts of clover and 2 or 3 of timothy, harrow lightly, and follow with the roller. Some object to a half bushel of seed to the acre as too much, but let us see. In Vol. III Rural Affairs, we learn it has been found by careful counting that a square foot of rich old pasture, composed of mixed grasses, contains about a thousand plants, which is about seven to every square inch, and that in a bushel of clean timothy there are some 40,000,000, and red clover 16,000,000 seeds. Now in every acre of land there are 5,984,640 square inches; and, allowing every seed to grow, we have from the 14 quarts of timothy less than three plants to the square inch, and from the two quarts of clover about one-third of a plant to the same area; but some seeds will get in too deep, while others will be destroyed by insects, which will make it still thinner, so it can readily be seen that the half bushel of seed to the acre is not heavy seeding. D. B. WAITE. *Springwater, N. Y.*

MULES vs. HORSES.

EDS. CO. GENT.—I have for the past four years been more and more convinced that the mule is far the more profitable animal to raise or keep for work. The following is a comparative statement of the cost of raising, value of animals, and comparative profit on raising the mule and horse. Mules got by imported or half-breed jacks will mature for work or market at two years old; the horse from four to five years old. The average working life of a mule is say twenty years; instances are known of their living to eighty years, and it is not unusual to see animals of thirty and thirty-five years of age at work regularly. The average working life of the horse is say nine years; many horses I am aware work more years, but I think it is generally conceded that the average will not exceed that time. The risk of raising a mule colt is much less than the horse, because of their more hardy nature, disease being almost unknown among them. To obtain the cost of the two animals when fit for service or sale, we will assume the cost of stallion and jack at the same price, say twenty dollars. The first year the cost of either colt is but very little, say ten dollars. The second year the cost of the mule colt and horse colt will be the same, although a mule as a general thing does not eat but two-thirds as much as a horse; it being more forward at two years old, we place it at the same cost. At this time we sell the mule, say at $200. The third and fourth year we say the horse colt costs but $25 each to raise, and is then sold at $200, which is a good average. The cost of the two animals appears as follows: Mule, cost of colt, $20; expense of keeping two years, $35; interest on cost and keeping at 6 per cent., $3; making a total of $58 cost, which deduct from its sale and add interest on money for the two years to bring it to date of sale of horse, —$200 —$58 —$142 and interest at 6 per cent., $16.84—$158.84, net profit on mule to date of sale of horse. Now the cost of horse colt, $20; expense of keeping two years, $35; interest on cost of keeping, $3; expense of keeping two years more, $50; interest on keeping, $4.50; making total of $112 50, which deduct from amount received for horse, $200, leaves profit of $87.50, or profit on raising mule, $158.84; profit on raising horse, $87.50; excess of profit in raising mules for sale over horses, $71.34, or almost as much as is realized for raising a horse.

This amount seems large, but when compared with the actual profit to the user of the animal, it is small.

The working life of a horse being 9 years, and the mule 20, one mule will last as long as 2 and 2-9ths horses. Therefore to do two hundred dollars' worth of mule work, it requires $444 44 100ths, besides interest on the cost of capital. I assume both mule and horse to be useless at the end of twenty years, which is not actually so, but near enough to show the comparison. The saving of hay and grain as fed the two animals by the army, being one-third less for the mule than the horse, amounts, hay calculated at $20 a ton and corn at $1 a bushel, to $30.51 a year. Interest averaged at ten years on entire amount of saving, $610.20=$366.12, or total of $976.32 saved in feed and interest of money, which add to the cost of horse flesh used up, $1,420.76, from which deduct the cost of mule, $200, leaves a profit of $1,220.76 for persons doing the same amount of work with mules for twenty years, over those who have horses for the same work.

The greatest difference in the world can be obtained by using good or bad animals to breed from; and if any one had a bad mule, I hope they will not condemn the entire hybrid, but seek to improve the next by crossing better bloods. R. S. I. *Nashville, Tenn.*

FEEDING RYE TO MARES.

MESSRS. TUCKER—In reply to W. R., in the Co. GENT. of May 4th, with regard to mares not getting with foal when fed on rye, I would say that it depends altogether upon how much *ergot* there is in the rye; but as there is always more or less in all, I would recommend not using any as food for brood-mares. Ergot is an echolic or parturient, and is sometimes used during the act of parturition to increase the uterine contractions and expedite the expulsion of the fœtus. It is a disease of rye that occurs about the time of blooming, when the young seed is observed to be covered with a white powdered matter, the seeds of a fungus, which gives the grain a mildewed appearance, arrests its natural growth, and causes its abortion. This aborted embryo gradually increases in size, passes out beyond the husk, becomes more and more deformed, acquires a purple or brown color, and forms the ergot or spur. Sometimes only a few grains in a head are affected, and sometimes scarcely one being altogether sound. JOS. C. HIGGINS, V. S.

Kingston, N. J.

BASEMENT STABLES.

EDITORS CO. GENT.—I noticed in your issue of the 2nd inst., an inquiry in relation to the healthiness of basement stables. I will give my experience with such stables. I have a barn 70 feet in front, 30 deep, fronting the south; three sides of the basement under ground; boarded in front; a row of stables across the west end for horses; a row across the east end for cows, and a row along the south side for cows; the remainder of the basement is used for roots, ground feed, straw, &c. I have generally kept from 14 to 16 head of cattle in this basement, with from three to four horses, for twenty years past. The horses are kept up the year around; the cows I generally turn out in the yard in front of the barn when the days are pleasant, but when the weather is unpleasant thye are kept in their stables. I have water in the yard, so there is no need of their going out from the time that foddering commences in the fall, until they are turned to grass in the spring.

The stables are regularly cleaned every day, and well littered. A more healthy lot of stock I have never known, for I have not had a sick cow or horse since I have used these stables. I certainly like basement stables much—they are warm and comfortable in winter, and cool and pleasant in summer.

I have a meadow near the barn, where I commence mowing for my horses the early part of fifth month. I like stabling horses through the summer, they are handy when wanted, no trouble if bad to catch, do not trample and destroy the grass, do not frolic and tear off their shoes, and the same amount of land will keep double the number or more than if turned out upon it. I have frequently thought of trying the soiling system with cows, but have not got at it yet.

APPLE ORCHARDS.

Nothing is more common in Connecticut, than to see an apple orchard ruined at the outset. For instance A. transplants a lot of inferior trees upon two acres of land, and imagines in ten years an abundance of delicious fruit. A crop of oats is taken from the land, followed by a rye or wheat crop, and the field seeded down to grass; in the fall, cattle, sheep and horses are turned in. After three years, a sickly looking tree here and there, is all that remains to show the owner's folly.

B. sets out 50 or 60 trees among the stumps of an old orchard; apple borers take immediate possession, and the proprietor soon finds his orchard a failure. In various ways more than half the orchards transplanted prove partial or total failures.

Now for the true plan: First, select your trees yourself if possible; don't allow a refuse tree to be set—it is only wasting time and care; determine that every mean scrub of a tree go to the bonfire before it finds a place in your orchard. See that the trees are carefully taken up and carefully set in well prepared ground.

2d. Let your land be carefully cultivated for at least six years. Allow no grain, except occasionally, perhaps, a crop of buckwheat, but never a crop of rye. The contrast between a cultivated orchard and a neglected one is astonishing, and the two only need to be seen to be appreciated.

3d. Protect your trees from cattle, sheep, mice and all destructive insects; otherwise your labor may be all lost. Exclude all domestic animals. Allow no mulching to remain around the trees in winter to harbor mice, and especially watch for the apple borer, one of the most insidious enemies of the apple tree. A gallon of soft soap diluted with one or two gallons of soft water, applied to the trunks of the trees, is an excellent thing for the trees, and is not agreeable to any insect. Nothing will kill an insect quicker than soft soap.

4th. Follow up a judicious system of pruning, leaving a good spreading, open head. By pruning annually, there will be no necessity of sawing off large branches, and the result will be more perfect trees Let the motto be followed—"whatever is worth doing, is worth doing well." P. M. AUGUR.

Middletown, May 6, 1865.

VARIETIES OF FOWLS.

EDS. CO. GENT.—I continue my description of poultry in your valuable paper, by taking up the Hamburg race. Hamburgs are divided into five varieties. First is Black, which are pure black in feather and legs, rose comb. Second is Silver Spangled, are pure white ground, with a round black spot on the center near the end of each feather, all over the body; white in the neck, although I have seen some specimens that were good, spotted in the neck. Thirdly is the Golden Spangled, which are a golden yellow ground, with spots like the Silver Spangled. Fourthly is the Golden Pencilled, golden

GOLDEN SPANGLED HAMBURG.

yellow ground, like golden Spangle, with black bars across the end of each feather, with golden neck hackle, pure, without a spot to be seen. Fifthly is the Silver Pencil, [known as Creole or Bolton Grey,) which are a pure white ground, with black bars on each feather, with pure white neck hackle. All Hamburgs have rose combs and blue legs, except the black; the cock will weigh from 3 to 4 pounds, and the hen from 3 to 3½ lbs.; are non-setters and good layers of small white eggs; hard to raise in this northern climate. I consider them worth nothing, except for eggs and their looks.

As I have described, in my last communications, the White Polands, I will now continue the Poland race, which are the White, Black, Golden and Silver. The Black are pure black in feather, with large white tops, bordered with black, (all others are not pure,) black legs and bills. I have seen good specimens with yellow legs, although I think they are crossed. Golden Polands are golden yellow in feather, with black spots, like Golden Spangled Hamburg, with large brownish red tops, with blue legs. Silver Polands are pure white feathers, with spots of black like the golden all over the body, with large silverish yellow tops, with blue legs. The Polands all have combs alike—a small comb in front of top with two points; are good layers of fair sized eggs, and considered non-setters; are hard to raise, like Hamburgs. I think them of no great value, except the Yellow Legged Polands, which differ from the rest, being easy to raise, and as good to eat as any fowl, except pure Dorkings.

Hamburgs and Polands are small eaters, eating less than most fowls, except Dorkings and one or two kind of games.

I will here say a few words about geese. My first choice is the White China, although not quite as large as some, but are more stately and proud than any other, having long, slim necks, orange colored legs and bills, with a knob on top of head next to the bill; will pick as many feathers as any goose, except Bremen or Toulouse, and nearly as many as they will; will lay more eggs than any other, as they will breed two or three times a year; there are but few in the country, therefore sell for large prices, as high as $12 to $16 a pair. I know of some being sold for more than that. L.

MY EXPERIENCE WITH BEES.

MESSRS. TUCKER & SON—Feeling quite an interest in the bee question, I carefully read all articles I find in the GENTLEMAN or elsewhere. Care of bees has been a favorite pastime with me for some thirty years, and I have experimented somewhat extensively with them in management and style of hives. In my early boyhood and for several years, my father used the old box-hive (without top boxes) of various sizes, holding from 50 to 150 lbs. of honey, the stocks in large hives sending off three and oft times five swarms in a season, besides storing large amounts of honey. The large boxes were the most profitable. By and by the top-box hive was introduced—consequence, less honey in pretty boxes, and less swarms. I have set one box top of another, and obtained 50 to 75 lbs. and over of honey—have built non-swarming hives, obtained some 100 lbs. a season, but have satisfied myself that large stocks pay best—allowing them to throw out one swarm a season unless it is not desirable to increase the number of swarms. But the great reason why no more honey is obtained from swarming stocks is the want of proper room to store it. This I discovered years ago, and have tried various ways to remedy the evil, and have abandoned one after another, it not being quite to my mind. If a box large enough to hold all the honey a swarm may gather in a season, is put on, it is too large, receives too much of the warmth of the breeding apartment, and there is not spare bees enough in the spring to keep it, and spiders and other insects get in.

But an extension surplus honey receptacle is the thing; and I am somewhat indebted to L. L. LANGSTROTH for the idea. I have two modes of use—one with the movable comb frame and slide partition, allowing the bees to commence on one side, and as they need room enlarge; and when the first combs are full, and the bees need more room, remove them, suppying empty frames. My other mode: Take a box, any size you please, saw into several, for one, two, three or more combs as you like, stick on guide combs where the combs are to be built, and then place them over your hive, letting your bees have access to a part at first; afterwards as they fill, give more room. You will slide glass or tin between your boxes for partitions, and let the bees into the supers as soon as they can gather honey. In one trial I have had 100 lbs. stored in three months by this management.

With this mode of management the bees will have just the room needed, and keep to work all the time of the honey season without having to lie idle while a part of the bees finish up a small box, and then perhaps the owner does not take it off for some time, and a valuable honey harvest is partly lost, to say nothing of the disturbance to bees in changing boxes.

Superiority of the Italian Bee.

Mr. FAIRCHILD inquires in regard to the hardiness of Italian bees, after relating some of his experience. I have kept them some five years, and have found them equal to my expectations; being more hardy than the black—less die in winter—they gather one-third more honey, breed one-third more bees—working when so cold that black ones right alongside would scarcely stir, and actually storing honey while the black were consuming their stores to live. This I have seen by actual inspection of the interior of the hives from day to day, each stock having equal chances, standing side by side—the Italian bees proving so much superior to the black, that I do not now keep the black ones at all.

New Britain, Ct. JOEL CURTIS.

P. S.—I am told that the Italian bees are kept in log-hives in their native clime.

AGRICULTURE OF MASSACHUSETTS.

The Twelfth Annual Report of the Secretary of the Massachusetts Board of Agriculture, C. L. FLINT, for 1864, is at hand with its customary promptness. It forms altogether a volume of nearly 500 pages, and is another valuable contribution to our rural literature.

Mr. Flint alludes, as among the leading agricultural features of the year, to the extension of tobacco culture, to the development of sheep husbandry, and to the increased employment of farm machinery and use of concentrated manures, in the State, as well as to the unusually good attendance elicited at the Autumn Agricultural Shows. The report of the Commissioners on Contagious Diseases among Cattle, proves that traces of pleuro-pneumonia continue to exist, but apparently in such a way as need excite no alarm.

The proceedings of the Board during the public meeting at Greenfield in December last, are reported at length. These meetings have become an important part of the yearly programme of operations. Among the proceedings we remark with interest the growing zeal of Prof. Agassiz in the sphere of agricultural inquiry; his views on breeding, and on the formation of soils, are expressed quite fully, and with much clearness and force. The remarks of Gov. Andrew, Mr. Flint and others, explain the present condition of the Massachusetts Agricultural College, about the constitution and location of which there have evidently been great differences of opinion, although all seem now disposed to help on as they can the plan finally settled upon at Amherst. The discussion on Sheep Husbandry was interesting. One speaker from Western Massachusetts, in advocating fine wooled sheep for the cheaper and more hilly lands of that part of the State, had come to the conclusion after long experience that the Spanish Merino was the most profitable branch of the family, as compared either with the Saxon, Silesian or French. He had obtained the Spanish Merinos of Vermont for use in his flock, and urged upon his hearers that they ought to "keep fewer sheep, and keep them better," as the "great secret of the superiority of Vermont sheep." He said:

"The sheep in our section are not so far behind the Vermont sheep, after all, as we are apt to think. I do not claim that they are as good, but the difference is more in the attention and care they receive than anything else."

He had purchased a ram from a flock which many consider the best in Vermont, six years ago, and for the purpose of experiment obtained a ewe at the same time:

"I thought I would know the value of this sheep. I served her just as I did my other sheep. We live in a country where we cannot raise grain; it is grass, and hardly anything else but grass. We raise pretty good cattle and sheep, but we raise them on grass almost entirely. I put this sheep in with my flock and let her run. In the spring I sheared her with the rest, and she sheared the most of any, with the exception of one; but you see she had been kept in Vermont till the middle of November. Well, she went out to my pasture the same as my other sheep, and the next year *she did not shear quite up to the average of the flock.* I kept her two or three years, and did not consider her an average sheep. She certainly was not an average in the quality of her wool; and I have generally found that our sheep in Western Massachusetts yield a better quality of wool, nicer, softer wool than they get in Vermont. There are exceptions to that, but that is the general rule."

Other interesting discussions were held and papers read, during the continuance of the same meeting, to which we have not space to refer. The transactions at the Annual Meeting at Boston follow, including reports—on Garden Vegetables and Root Crops, by T. G. Huntington; on the Cultivation of the Pitch Pine on the Sea Coast, by S. B. Phinney from the committee on the management of forest trees; on Farm Buildings, by C. O. Perkins; on Fruit Culture, by John B. Moore. The appendix to the first part of the volume contains reports from the local Agricultural exhibitions by members of the Board appointed to attend them as delegates—also the financial statement required by law from the several societies. This statement shows that the 24 county and district societies recognized by the State, received during the year—

From the commonwealth,	$14,320.00
Income of funds,	5,745.09
New members and donations,	4,015.93
All other sources,	23,827.46
Total,	$47,907.48

They offered nearly $25,000 in premiums, but actually disbursed only about $14,000 in this way. They possessed real estate to the amount, in round numbers, of $194,500, and personal property to the amount of $38,400, which, after deducting $45,000 indebtedness, would leave the net property in their possession not far short of $188,000.

The second part of the volume contains abstracts from the Proceedings of County Societies, including addresses, farm statements, reports, &c., from various parts of the State.

BEAN SOUP.

Wash the beans; then put one quart common white beans, or one quart of turtle soup beans, into a bowl and cover with water—soak over night. The next morning put four quarts of water into a pot, turn in the beans, with three or four onions, a couple of carrots, and a tablespoonful celery seed tied in a muslin bag. If black beans are used, stick three cloves in each onion; put it on to boil slowly for four hours. Then pour the soup on a sieve, and *rub* all thoroughly through it. Put on the soup again, that it may heat and boil down if *too* thin; or if too thick, add *hot* water. Season with pepper and salt. Have some slices of bread toasted, *cut* in small pieces and put in the tureen, and turn on the hot soup. If the Black beans are used, *small bits* of sliced lemon are a great improvement.

A richer soup may be made by boiling a shin of beef the day before, and taking off *all* the fat after straining and cooling; or any bones suitable for soup can be used. This receipt will make three quarts of superior soup.

Boston, Mass. AN OLD HOUSEKEEPER.

NOODLE SOUP.

Take two pounds beef—put on water enough to cook tender—break two eggs into three teacups flour, then mix to a hard dough—then roll as thin as can be rolled—then dust over some flour, and roll into a nice even roll—then take a sharp knife and shave from the even end of the roll thin shavings until the whole is shaved. Shake these dough shavings, or so-called Noodles, all nicely up, and dust more flour, and when the soup is done put in the Noodles, and let it boil five minutes—then serve it. A. DECKER.

SQUASH BUGS, &C.—Walter Butler writes the Genesee Farmer that he has tried many different articles to keep bugs from vines, but never found anything equal to sulphur put on with a dredging box after every shower.

THE HYDRAULIC RAM.

EDS. CO. GENT.—Within the past two or three years I have noticed several inquiries about the working of the above named apparatus for forcing water from a lower to a higher point. Having procured and put one in operation last November, I have thought a short account of its *doings* might interest some of the readers of the CO. GENT.

My buildings are so situated that I could not, without too much expense, bring water to them by an aqueduct. For a number of years past I have used a chain pump in taking the water from a well to supply my cattle, &c., during the winter. This required a great deal of time, and what water was left in the trough over night would freeze, and always the water was nearly at the freezing point.

About twelve rods west of my barn there is a brook, which affords a good supply of water most of the year. Across the brook I erected a dam some 20 feet long, and 3 feet high. About 30 feet below the dam I placed the ram, leading the water from the pond through logs of 1¼ inch bore; and from the ram to the barn used logs of 1 inch bore—connecting the logs to the ram by about 3 feet of 1¼ inch lead pipe, and used lead pipe of ¼ inch bore from the ram to the inch bored logs. Let on the water, and from that till this time there has been a nearly continuous flow of water, filling a half inch pipe of waste water from the trough. Once it ceased running for a short time, in consequence of the strainer at the head of the force pipe getting clogged by the sawdust from a shingle mill a third of a mile above the dam, and two or three times it has ceased to operate for a few hours, in consequence of back water. Otherwise the ram has kept butting away with the regularity of clock-work.

The water of the pond overflowed about one-third of an acre of grass land. A few days since the water was drawn off, and the flowage is so regulated that there is but six inches head of water at the upper end of the feeding log or pipe. I do not think there is over 18 inches of head and fall, yet the machine keeps in constant operation, making about half as many pulsations in a given time as it did with a two and a half feet head of water. But slow as it moves, I think it would afford a full supply of water for 50 head of cattle. I should be very loth to be deprived of this great water convenience, even for three times its cost.

The logs used were of pine, fir and poplar. Lead pipe was so dear last fall that I thought it would be better to use wooden ones, and when they fail, lead pipe can easily be thrust up the bore of the wooden logs.

I have seen hundreds of locations where these rams could be conveniently used in bringing water to the farm buildings, at no great outlay of money, yet the owners neglected to procure them, and drove their cattle, sheep, &c., a long distance to drink, through all the cold stormy days of winter, the owner and his stock thereby greatly suffering from neglect of having water in his barn-yard. L. BARTLETT.

Importation.—Mr. James Hewitson, Arran, C. W., has just returned from England with eight ewe and three ram lambs, pure bred Leicesters of the best blood, purchased from John Hannam, Kirk Deighton, Yorkshire. The ewe lambs were awarded the first prize at the last Yorkshire Show. So says a correspondent of the Canada Farmer.

DRILLING SPRING CROPS.

EDITORS CULTIVATOR—Every rule has its exceptions. This year the great amount of rain which has fallen in Ohio, renders it a necessity here to drill in spring crops. The earth in fresh plowed fields has become so thoroughly run together by the rain, and baked, that in many instances it will not do to sow broadcast, because the harrow will not cover the seed sufficiently; hence the necessity of using the drill. But indeed a crop sown in this way cannot be regarded as sown under favorable circumstances.

Last year I wrote an article for THE CULTIVATOR on the "Wheat Crop in Southern Ohio," published in the June No., p. 187, in which I endeavored to demonstrate to my fellow farmers the manifest advantages which the drill possesses over all other methods of sowing fall crops. While therefore I still earnestly advocate the use of the drill in fall grain for the reasons mentioned in the aforesaid letter, I also, (as far as my theory goes, and so far as I can sustain it by observation based upon practical experience,) oppose the drilling of barley, oats, and other crops, as the *general rule* for spring seeding.

Broadcast sowing has these advantages

1st. By this system the grain is more equally divided and distributed over the surface than by drilling. This is certainly better. Of two fields, one sown broadcast last year, the other drilled this year, the broadcast sowing presented by far the best appearance up to corresponding dates. Time of sowing, quality of the soil, and other circumstances being about equal. The only drawback in favor of the broadcast sowing being the excessive wet, which can hardly be regarded as a drawback to the drilled barley, because the wet does not appear to injure it.

2d. The deep covering may be raised as an objection. Where the ground is mellow, and not hard or baked, the harrow will cover sufficiently deep.

3d. A skillful hand will sow faster and save the wear, tear and expense of a drill.

4th. As the chief virtue attributed to the drill in fall seeding is protection from frost in winter to the grain thus sown, this is not to be feared in spring.

The chief fault therefore of the drill is that while it lumps a large number of seed in a small space, it leaves large spaces bare.

To sum up and conclude, I respectfully submit the inference that there is little or nothing gained, but absolute loss incurred, by drilling spring grain.

Harrieon, Ohio. HARRY B.

SEED POTATOES.

Your correspondent S. W. HALL, in CO. GENT. of April 20, 1865, advances some ideas upon this subject which my experience has proved to be correct. It has always been my practice to select fair, medium, or large sized potatoes for seed. These (except in some cases for experiment) I have invariably *cut fine*, leaving not more than *two* eyes on a piece. When planting in drills, about 3½ feet apart, I dropped single pieces about 1 foot apart; when in hills 3 to 3½ feet apart, not more than two pieces in a hill. Seven years ago I took pains in cutting my seed ot keep the eyes from the *seed end* of the potatoes, separate from the *butts*, and planted them in separate rows,

although side by side. The varieties were Carters, Junes and Prince Alberts. The result was that the eyes from the *seed end* came up first, the plants were more fresh and vigorous, and for more than one half of the season there was a marked difference in their growth and appearance. I did not perfect my experiment as I should have done, by measuring the product of each; but I was satisfied in my own mind that the setts from the *seed end* of the potato produced the largest crop. To a man cultivating a large area in potatoes, and using machinery for cutting and planting, it may not pay to use only seed ends; but to a large majority of farmers it *would pay*—reserving the butts for cooking or feeding. *One fact* at least is well established, *over-seeding is sure to produce small potatoes.* In cutting the seed it will not do to be governed by the *size of the piece*, but by the *number of the eyes upon it.* That is the reason why *no machine* will ever be made to do the work, which requires considerable judgment and intelligence. P. P. B. *Batavia.*

CONCRETE BUILDINGS.

I find that cobblestone packed in lime mortar between boards laid on the wall raised as fast as it sets, makes a cheap and substantial building. It is rough coated on the outside, blocked off and colored in imitation of stone.

No finish can excel this in beauty or durability. In the country such finish blends harmoniously with the landscape, is pleasing to the cultivated eye and winning to the senses.

I built an ash and smoke-house 8 feet square by 7 feet high, cemented at bottom, and beautifully finished, for $12. It answers every purpose of such a building. I built a boiler and hog-house, 18 feet square by 12 feet high, well finished on outside, at an expense of $50. I can keep corn in it clear of rats. I built a drying house for a keg manufacturing company, 18 by 22 feet, by 10 feet high, at a cost of $100. It has sustained a great heat, enough to fire a wooden building, and answers every purpose. Apples could be dried in such a house to good profit. The stones were gathered from the adjacent grounds, and were of all sizes to fit in a 10 and 20 inch wall. Farm hands can work on such walls, having a master mason to direct the laborer.

Where stone are plenty, buildings of this material can be reared for one half the cost of wood. For dwelling houses strips of boards are laid up in the wall for lathing, to give an air chamber to avoid any dampness. A. L. L. *North Granby, Ct.*

Baked Meat and Beans.

One pound of fat pork to each quart of beans. Soak the pork over night in cold water. In the morning, after the beans have been well picked over, they should be placed in a kettle of cold water and set on the stove, rubbing them with both hands occasionally. Let them remain until the water comes to a boil, then drain off, and again add cold water; this time let the beans boil a minute or so. Then drain and renew the process by adding cold water, about a gallon to each quart of beans. If the water should boil out, replenish with cold water. When the beans are soft and the broth is nearly boiled out, place the beans in a bake-pan, with the meat on top after it has been gashed. Bake in a slow oven one hour. Take the pork on a plate by itself. Mash the beans with a spoon and potato-jammer, until there is not a whole one left. They should be placed on a plate, smoothed nicely over. On the top spread a bit of butter, and sprinkle with pepper to suit the taste. You can ornament them by placing over the top boiled blood beets, chopped fine.

Steamed Wheat Flour Pudding.

One pint of sour milk, one egg, a teaspoonful of soda, a little salt, and flour sufficient to make a batter. Steam one hour over a brisk fire, and longer if the water does not boil fast.

Steamed Indian Meal Pudding.

Use the same wetting as for wheat flour pudding. Thicken with meal, and steam three hours.

Serve with sweetened cream for both of the above puddings.

Corn-Starch Pudding.

One quart of sweet milk brought to a boil, add a little salt, two eggs well beaten, three heaping tablespoonfuls of corn-starch, with the addition of a little sweet milk. Stir well. It will cook in four or five minutes. Serve with sweetened cream.

Wheat-Bread Pancakes.

Place dry bits of bread in a tin-pan with sweet milk; place it on the stove and let soak until very soft; strain through a colander, add a little sour milk, salt and soda; thicken with flour sufficient to bake on a griddle. Bring them to the table while hot, and serve with butter and sugar or molasses. It is a very economical way of saving the dry pieces of bread. Mrs. E. A. CALL. *Fabius, Onondaga Co., N. Y.*—*(See advertisement.)*

Scale of Prices for Factory Cheese Makin

A number of plans have been suggested to get at some scale of prices for manufacturing cheese at factories that would be satisfactory to both patrons and manufacturers. The scale adopted at the Herkimer County Union Factory, appears to have considerable merit. We do not remember to have heard of any other factory making rates on the same basis, and therefore give it for the consideration of those interested in this matter, at various factories.

The price received for manufacturing depends not only upon the sales, but the number of cows from which the milk is delivered, thus making it an object with the manufacturer to produce cheese that will sell high in the market, and for farmers to deliver milk from a large number of cows in order to reduce the rate of manufacture.

The price starts at 10 per cent. on sales for 400 cows, and falls ½ per cent. for every additional 100 cows, as follows:

400	cows	10	per cent. on sales.
500	do.	9½	do. do.
600	do.	9	do. do.
700	do.	8½	do. do.

At this rate 1,000 cows would reduce the price of manufacturing to 7 per cent. on sales, and if cheese sold at 15 cents, would be $1.05 per hundred. At 400 cows the sales being 15 cents per pound, $1.50 per hundred would be the price for manufacturing. But in this case, allowing the cows to produce on an average 400 pounds of cheese each, the gross receipts for manufacturing would amount to $1,600, while the 1,000 cows at 7 per cent., to $2,800. If cheese should drop to 10 cents per pound on the above plan, the price for manufacturing for the 400 cows would be $1 per hundred, while for the 1,000 cows the price would only reach 70 cents. In view of the unstable condition of the cheese market, the above scale of prices seems to be about the fair thing.—*Utica Weekly Herald.*

Picket—a chap who is sent out to borrow tobacco of the enemy for the officers.

LARGE vs. SMALL FARMS.

The questions, "Ought farmers to labor?" "How to make farming profitable?" "Ten acres Enough?" "What is requisite to make farming desirable?" and kindred subjects, have been very thoroughly discussed during the past year in the agricultural papers. There have been numerous editorials regreting that no greater number of gentlemen of wealth and culture make agriculture a vocation. We propose to answer this last proposition. There is much valuable advice proffered in regard to the cultivation of industrious habits, of economy, contentment, &c., and especially as to the thorough cultivation of the soil, with numerous arguments to induce those who have two or three hundred acres to sell one-half or more, and improve the remainder. And one would judge, from the tone of the press, that although farming is conducive to health, longevity, and morals—to the prosperity and perpetuity of Republican and Democratic institutions—it is not a field to gain wealth or distinction. This, we think, is a mistaken idea, and is the reason why no adequate capital, energy, machinery, &c., are employed in cultivating the earth.

We are living in what has been truly termed "a fast age." Men of ambition and intelligence will not invest capital in any business which does not promise large returns. Men build ships and railroads; purchase pork and gold; erect extensive foundries and manufactories; establish banks and mercantile firms, requiring large capital, and give strict attention to business—principally with the expectation of realizing large fortunes. The love of gain, of gold, and of affluence, is the incentive that produces the fastest steamers, the best machinery, and the most improved telegraphs, &c., &c.

Men are taught that the farming life is one of unrequited toil and drudgery, with no opportunity of amassing wealth, which is the ruling passion of the American people.

It is not our purpose to discuss the morality or even the political economy of the question of large vs. small farms. It possibly might be demonstrated that if gentlemen would remove to the country, settle upon small farms, go to bed at seven o'clock, work with their own hands, control their ambition and the lust or love of wealth, they would be the better citizens—that small estates are better for the State, &c.

This may be true—and we shall not attempt to dispute it, although it probably could be met with arguments equally convincing to some minds, that the love of money impels energetic, ambitious men to make great improvements, and that, after all, they are the most useful citizens. But true or false, we are obliged to take men as they are. The fact is, this is a grand progressive age, and really smart, active, intelligent men only will attempt to do "*big things*;" and farming, as it is now prosecuted, is a slow, tedious, laborious, and disagreeable occupation, and these gentlemen eschew it.

Our business in this very brief sketch is to demonstrate that agricultural pursuits are not necessarily the irksome and unprofitable occupation that most people imagine it is—that it really is one that offers the greatest inducements for the perfectly safe and profitable investment of capital—for eminent usefulness, and to give the widest scope for the full exercise of the brightest intellectual faculties, as well as for pleasure and elegant ease. But we propose to confine our argument to the *profit* of farming on a large scale; and shall attempt to prove that the investment of $300,000, either by a single individual or company, in the business of farming, would more certainly make *larger* dividends than *any other* ordinarily safe business.

Let us see how this can be accomplished. Suppose a gentleman or company purchase, say, 30 farms, adjoining—which may be done within 20 or 30 miles from New-York, at an average of $60 per acre—say, 2,400 acres of tillable land, and 600 of forest; or

Three thousand acres at $60 per acre,	$180,000
To build mansion and carriage house,	20,000
do. a church,	5,000
do. parsonage,	3,000
do. store,	3,000
do. school-house,	2,000
do. grist-mill and saw-mill,	5,000
do. barn and out-buildings,	6,000
do. hen-houses and fish pond,	5,000
do. green-houses, graperies, &c.,	10,000
Ten cottages, $1,000 each,	10,000
One thousand sheep, $5 each,	5,000
Four rams, $250 each,	1,000
One hundred cows, $50 each,	5,000
Twenty-five brood mares,	3,000
Two bulls and a stallion,	1,000
To purchase plants, trees, &c.,	5,000
Tinware for cans,	3,000
Glass for fruit,	3,000
For wagons, carriages, tools, &c.,	5,000
Cash in bank,	20,000
	$300,000

ANNUAL EXPENSE ACCOUNT.

Seven per cent. interest on capital,	$21,000
Family expenses,	5,000
Annual tax,	3,000
Minister's salary,	2,000
School-teacher,	800
Foreman on farm,	1,000
Gardener,	800
Nurseryman,	800
Clerk and book-keeper,	1,000
Two clerks in New-York,	2,000
For cartage and freight in New-York,	1,000
Blacksmith,	800
Wheelwright,	800
Poultry and fish man,	800
Two tinsmiths,	1,200
Sixty workmen, at $300 per annum and rent,	18,000
For labor of women and children,	5,000
Manure and Seeds, &c.,	8,000
Rent of store in New-York,	2,000
Total expense,	$75,000

ANNUAL AMOUNT OF INCOME AFTER THE THIRD YEAR.

200 acres of peach orchard, $200 per acre,	$40,000
100 do. tobacco, $300 per acre,	30,000
100 do. sorghum, $200 per acre,	20,000
60 do. grapes, $500 per acre,	30,000
50 do. sweet corn, in cans,	10,000
50 do. tomatoes do.	10,000
30 do. strawberries, $300 per acre,	9,000
30 do. blackberries, $300 do.	9,000
50 do. cranberries, $500 do.	25,000
20 do. celery, $300 per acre,	6,000
100 do. white beans,	10,000
20,000 lbs. of grapes raised under glass, 50 cts. per lb.,	10,000
10 acres of asparagus, $300 per acre,	3,000
10 do. cucumbers, pickled in glass jars,	5,000
6,000 pounds of wool,	5,000
600 lambs,	3,000
100 head of fat cattle,	10,000
25 young horses,	5,000
For pork,	3,000
Fish and poultry,	7,000
Total income,	$250,000
Expense account,	75,000
Net annual income,	$175,000

It will be observed we make no note of the grain, hay, potatoes, turnips, beets, &c., raised on the place, as they would be consumed on the farm, and reduce the amount of the item paid for labor about two-thirds, or pay for additional labor.

THE NINTH YEAR.

At the expiration of the ninth year, 400 acres of apple orchard come into bearing, and produce on an average $100 per acre, $40,000; 50 acres of choice pears, $200 per acre, $10,000. There are also large quantities of quinces, plums and cherries for market and canning. There have been 100 acres of vineyard added to the place, which produce $100,000 of wine per annum. The tobacco is manufactured into segars, and the income from this source is trebled.

The sheep also have been increased to 2,000, and the cattle to 200, and are now all of the finest breeds, and the sales of fancy stock at fancy prices afford a very large income.

The thirty farm houses have been altered to accom-

modate two families each. They have been furnished with slate roofs and piazzas, and nicely painted, presenting a fine appearance. The old barns also have new slate roofs, and have been painted and repaired, and very greatly improved in appearance and usefulness. The forest, of which there is about 600 acres, has been cleared of all the old, as well as of the crooked and worthless trees, the bushes cut, and the whole seeded in grass of different kinds, affording excellent pasture and shade for animals in hot weather. 100 acres have been put into a deer park, which contains hundreds of deer and tens of thousands of English rabbits and pheasants, which prove both a pleasure and profit.

200 acres of the oak and chestnut woodland are inclosed with a high wall, and in this pig-yard are several thousand hogs and pigs of the Prince Albert breed, which thrive and multiply amazingly.

There has been an elegant signal tower and observatory erected, and the roads and bridges on the place and in the vicinity have been put in excellent condition; the old church has been converted into a library and concert room, and a new and beautiful stone church adorns the village. The old fences have all been removed, the fields enlarged, and surrounded with painted picket fence, and elegant gate-ways give the landscape an entirely new and very beautiful appearance. Indeed, the plantation and the vicinity presents an entirely new aspect. The very heavens look new, especially in the month of June, when the millions and thousands of millions of flowers that burden the fruit trees seem to reflect their beauty on the sky, and alter the atmosphere to one fit for Paradise. It seems, indeed, like A NEW HEAVEN AND NEW EARTH.

This plantation is now worth at least $500 per acre, or $1,500,000.

Where is the bank, mercantile establishment, oil-well, or gold mine that can produce so favorable an exhibit?

The above is respectfully dedicated to "OLD HURRICANE." PROGRESSIVE FARMER.

New-York, Feb. 7, 1865.

CORN FODDER.

I have recently received from H. L. of Huntington, Suffolk Co., a number of inquiries as to corn fodder, prompted by the article in COUNTRY GENTLEMAN of March 9th. As others may be equally interested in the subject, I conclude to answer through your columns instead of by private letter.

1. I make the drills with a one-horse plow on well plowed and harrowed ground, running to a depth of three or four inches. The corn, after sowing along these furrows, is covered with a two-horse harrow running lengthwise with the furrows—or a one-horse cultivator does about as well. The earliest sowing should be about the usual time of planting corn for cutting early in a green state; for the main crop it may be sowed just before the first hoeing time. For autumn soiling it may be nearly as late as midsummer. It will only succeed on sward ground by first mellowing the inverted sod thoroughly by means of a Shares' harrow—and even then does not succeed so well as on other ground, as there should be a good supply of moisture from below. The stalks being so numerous, carry off a vast amount of moisture from the earth, and rather moist, deeply plowed land is therefore best. The application of manure would of course increase the amount of crop, provided it is so thoroughly intermixed as not to augment the effects of drouth. For winter fodder, the crop should be cut just as soon as the edges of the leaves begin to become dry, when the juice is matured and there is the greatest amount of nutritive feed. If left later the stalks are hard and not so good.

I have used sorghum to some extent for fodder. would by no means sow this or common corn broadcast,—as it takes more seed, produces less, and does not leave the ground so clean. The sorghum yields nearly twice as much as common corn; and is eaten with great avidity in autumn by cattle, when freshly cut—indeed they are so fond of it that they will not freely eat any other food, for which reason they should have plenty of the sorghum. Late in autumn and early in winter, the stalks become too hard, and require cutting short. I have used Hickox's cutter, which grinds the chopped stuff after cutting, but it does not cut short enough,—being half an inch long instead of a fourth of an inch.

Both kinds of fodder are best if stooked or shocked in the field—taking great care to place it even and erect and in pretty good sized stooks. It will thus dry perfectly in all weathers, and come out bright and fresh in winter. If stacked even, after several weeks' drying, it is sure to heat and mold. J.

A Regular Curve for Roads or Paths.

To lay out a regular curve for a road or path, I take a pole ten or twelve feet long, and put a stake each length of the pole, in about the direction required. I then take a strip of board three or four inches wide, and three or four feet long. At one end I drive a nail through the board and into the end of a stick an inch square, and a foot or more long, so that when the board is on the ground the stick stands erect like a stake. The distance from this stake to the end of the board, is divided off into equal spaces of about three inches. Commencing now at one end of the curve, I place three stakes in what seem the right positions, and putting my instrument at the third stake I bring the stake which is fixed upon it, in line with the first two stakes, and then note the number of spaces on the board to the third stake. I then move to the fourth stake, and bringing my instrumental stake in line with the second and third stakes, I take up the fourth stake and put it down at the same distance from the instrumental stake that I found the third stake to be from the line of the first two stakes. This operation is repeated at each stake until the road is marked out, or until I discover that I have taken a wrong curve, in which case I commence back again. When two persons work together, it will be easier and quicker to measure distances and set the curve at the same time.

If this suggestion be worth publication it is at your service. Those who have many curved roads or paths to lay out, will appreciate it. M. S. B.

Poughkeepsie, April 12, 1865.

The Connecticut Valley.—The Greenfield, Mass., Gazette says that in that part of the Connecticut Valley there will not be as much tobacco raised as last season. A large amount of old tobacco is still in the hands of the growers. Those who sold in Jan. and Feb. were fortunate. In Sunderland the farmers, many of them, will raise onions instead of tobacco—in other towns, broom and Indian corn. Help is still high, good hands commanding from $30 to $35 a month and board.

Carolina Parrot or Parakeet---*Conurus carolinensis.* KUHL.

Of the many hundred species of parrots known to exist, this is the only one which is an inhabitant of the United States. It is essentially a southern bird, rarely visiting any place farther north than Virginia on the east, although it ventures much higher in the west, being seen on the banks of the Illinois, and occasionally on the southern shores of Lake Michigan. It has been known to visit Pennsylvania, and on one extraordinary occasion, Albany, New-York.

Our engraving gives a very good representation of these birds, and if you will examine it you will perceieve that one of the parrots is just about to eat one of its favorite morsels—a cockle burr—although unfortunately the artist has not placed them upon a bush of the kind of which it is supposed to be eating the burr. Its food consists of every kind of fruit, as well as grain and the cockle burr before referred to. They are very destructive birds in their eating, and will frequently assail the pear and apple trees when the fruit is much too small for eating, just for the sake of the seeds. A pear tree may be loaded down with green fruit, and the owner congratulating himself upon the prospect of a nice crop, when lo! he wakes up in the morning to find the tree stripped of all its fruit by a flock of these birds. This is not the only mischief that they do the farmer, for a flock will frequently alight upon a stack of grain, and what with their pulling the grain from the stack and eating it, they destroy an immense quantity. The farmers do not take all these injuries without retaliation, for they take every opportunity to shoot them. If one bird be wounded and cry for assistance, the whole flock will return and hover over him, when any number of them can be killed. They appear to have such an affection for each other, that they will again and again return to their wounded comrades, although their ranks be thinned at every discharge.

They are able to climb very easily, owing to the formation of their feet and bill. On the ground they walk very awkwardly, and seem to be incommoded by their long tail.

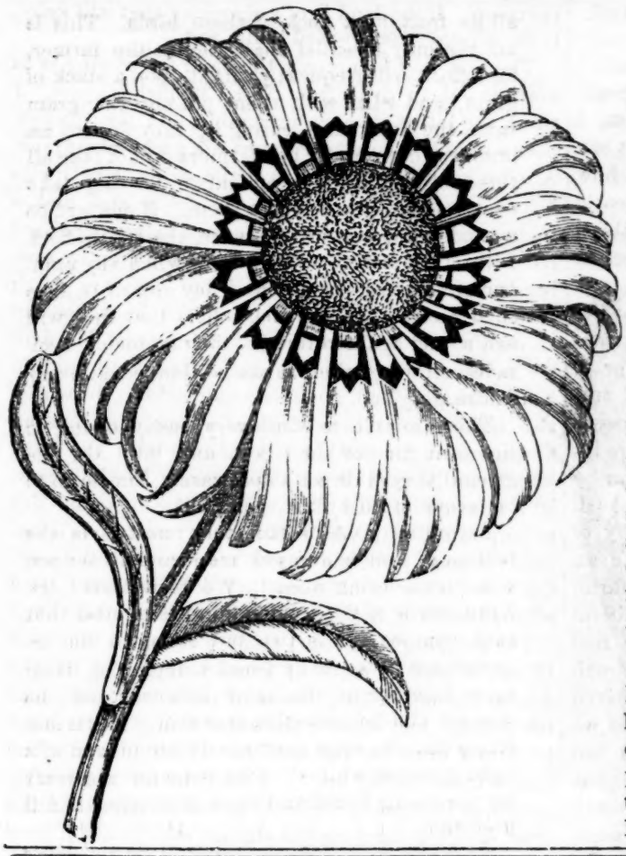
According to AUDUBON their nest is in the bottom of hollow decayed trees, and here upon some mouldering wood they deposit their eggs. AUDUBON is of the opinion that the number that each female lays is two, but owing to the circumstance of so many females depositing their eggs together in the same hollow stump, he was not able to prove this assertion. He farther states that the eggs are "nearly round, and of a light greenish-white." Two years are necessary for the young Carolina Parrot to acquire its full plumage.

At night they roost in hollow trees and holes excavated by the larger species of wood-peckers clinging on to the sides by means of their claws and bill.

Their flight is straight and rapid, and not unlike that of the common Passenger or Wild Pigeon, (*Ectophistes migratoria*, SW.) They utter loud cries when flying, which somewhat resemble those of the Red-headed Woodpecker, (*Melanerpes erythrocephalus*, SW. J. P. NORRIS.

WEEPING ROSES.

Weeping roses are produced by budding the longer and freer growing sorts standard height, and afterwards bending them downwards, and giving them a uniformly drooping form by means of a hoop. It is especially important to keep weeping roses well and uniformly pruned. The Prairie roses may be made into handsome weeping bushes.



SPLENDID GAZANIA.

Gazania Splendens is one of the most showy and beautiful bedding plants lately brought to the notice of the lovers of flowers. The engraving, though as fair a representation of the flower, in size and appearance, as a wood cut can well be—nothing but a colored plate can do it justice. The plant is compact, close branching, and decumbent in habit. The stems which are green with a reddish tint, bear smooth, glossy, oblong-spathulate leaves, furnished here and there with small single or twin side lobes; these leaves are dark green above and silvery white beneath. The blossom heads, which are from 3 to 4 inches in diameter, resembling rich golden orange chrysanthemums with gracefully divided margins, are picturesquely marked at the base of each floret with a broad spot of rich brown chocolate tint upon a black base, and close beside this is a distinct white spot on the same dark ground. The fine effect of these singular markings may be imaged.—*Tucker's Annual Register.*

Pomological Convention.—The Montreal Horticultural Society, proposes holding a Pomological Convention during the exhibition week of the Lower Canada Agricultural Board. They propose inviting all the Horticultural Societies throughout the Province to unite in making an Exhibition of Fruit.

SHELTERING LANDS.

This subject is evidently *beginning* to receive the attention it merits. We hope it will receive a fresh impulse the present season, not from any personal consideration, for we have none to gratify, but for the economy and comfort of those who wish to make bleak and uninviting places more genial,—more inviting.

The season has now reached us, when, with proper care, the planting out of screens of evergreens may safely be commenced. With care on the part of those who put out such screens, it will be a safe operation to perform from now to June. In careless, hurrying hands it is never safe, and cannot be promised in hope of success. Though it may succeed if done in a slovenly manner, the good result comes rather by accident than as a reward for labor.

When evergreens are to be set for a hedge, the ground should have a previous preparation by plowing and thoroughly mellowing. This may be effected by plowing a strip where the hedge is to stand, and raising a crop of potatoes. A fresh and deep plowing should be given in the spring, before transplanting. By opening the dead furrow through, where the row is to stand, much labor of digging will be saved.

In regions of the hemlock, there is no difficulty in obtaining good plants. We have seen them in patches, "thick as hops," in old pastures and in moist places by the wayside, and taken from such old exhausted soils, they soon acquire health and vigor in the fresh grounds prepared to receive them. The risks of such plants are much fewer than in those taken from nursery rows, where labor and care have given them thriftiness. In these old grounds, where the soil is thin and almost barren, with a very little care they can be taken without scarcely breaking a fibre, retaining all the soil, if it is soil in which their matted roots are interlaced. This is a great help to their future growth. In many instances, by running a stiff shovel under them the whole may be lifted.

Small plants are decidedly best for removing, from the fact that you secure more roots, and in early growth they bear the transfer much better.

It is a mistaken theory that supposes any permanent gain is to be realized in removing large evergreens. Let one row be planted with plants from three to six inches high, and another with those of from two to three feet, and in five years any person will choose the row of those planted small. They will by that time show more size, richer foliage, and more dense growth than the larger plants.

Although in the above remarks much has been repeated that has already been before the public, we think now at this season of the year, no apology is necessary. Truth does not suffer from repetition, and as this may prove a *timely* article to many, we do not hesitate to offer it. William Bacon.

Richmond, Mass.

Cracked Teats in Cows.—It is said that bathing the bag and teats in the suds from Castile soap, and then thoroughly anointing the affected parts with glycerine twice per day, will cure the most stubborn cases in two or three days.

Cure for Bloody Milk.—Take poke weed root, the size of a small hen's egg, grate or chop fine, then mix with oats, and give the cow a mess once a day for two days.

THE TURNIP AND ITS CULTIVATION.

BY J. C. SNELL, EDMONTON, C. W.

I am going to give you my experience in turnip culture during the last ten years, on my father's farm. I shall not attempt to give positive proof that it is a profitable or paying crop, but I cannot understand how any one that keeps good stock, and pays attention to pushing forward young animals, can well do without them. It is true that if all the labor that must be expended in its cultivation be taken into account, it is one of the most expensive crops we raise, if not the *most expensive*, but it leaves the land in first rate condition for growing future crops of any kind. For it must be well manured to produce a good crop of turnips, and it must be so well cultivated that all grasses and weeds are effectually killed. We can do more injury to Canada thistles by cultivating turnips than by any other course. We get a larger amount of good, succulent feed for stock from the same quantity of land than we can of any other crop. We make an immense pile of excellent manure to keep up the farm, and our stock is healthier and better for a liberal supply of roots. Besides all this there is more real pleasure in working among and watching the growth and progress of a field of turnips than can be derived from any other crop; it is really fascinating, and we consider it by no means an uncertain crop; in ten years we have never failed to get an average crop. This year, 1864, in spite of the most severe drouth that the "oldest inhabitant" has ever experienced, we have cultivated twenty-six acres, and never had a better crop. I am quite certain that they will average 900 bushels per acre. This is considered a good crop, but as high as 1,200 bushels have been grown in Canada. In this, as in the cultivation of any crop, a great deal has to be learned by observation and experience —sometimes dear bought experience.

A good crop of turnips may be obtained without the use of artificial or expensive manures, by using only good barnyard manure; by this I do not mean the kind of manure generally used by our farmers, such as rotten straw and the droppings of animals that have been fed on straw, but manure made from animals that have been well fed. I think the best time to apply the manure is in the fall, spread and plowed under. In this way it keeps the soil open and loose during the winter, and becomes thoroughly mixed with it. But if it is not convenient to apply it in the fall, manure that has been composted during the winter, and is well rotted, can be applied in the same way in the spring. But perhaps a better way to get immediate benefit from the manure is to open out drills and spread the manure in the drills; then close them and sow upon the top. This mode requires more labor, but will perhaps pay for it in the crop, as the manure is directly under the plants, and must have a good effect. If the land has been plowed in the fall, as it certainly should be, it need not be moved again till most of the spring work is through, about the last of May, when it should be plowed, harrowed and rolled, then let lie for a week or two, so that any seeds of noxious weeds that may be present will have time to sprout; the land should then be thoroughly worked with the plow, harrow, cultivator and roller, till it is fine and loose; a fine seed bed is of the greatest importance. If the land is of a character that will bake, it should never be worked while wet.

The best way to prepare the land for sowing is to mark it out in drills from 26 to 30 inches apart. I think the latter distance preferable, and for this purpose a double mould-board plow is a great advantage. A roller should be passed over the drills, lengthwise before sowing; this flattens the drills and makes them more solid, to prevent the seed being deposited too deep. You may get quite as good a crop by sowing and cultivating on the level, but they are much easier to work in raised drills, and the horse-hoe can be used sooner without injury to the plants. The drill we have used for sowing is one of the kind used in Yorkshire, England, a cumberous machine, drawn by two horses, (sows three drills at a time,) and has an arrangement for sowing dry manure with the seed, which can be used or not at pleasure. We have sowed a mixture of coal dust, ashes, bone-dust and dry swamp muck with very satisfactory results. It is certainly a good principle to sow manure with the seed, but it is rather troublesome. We have never tried superphosphate, but have no doubt it is a good thing.

For covering the seed I think a brush is the best thing; it may be made of green branches or boughs drawn through a light frame of poles; a roller packs the ground, and when a shower of rain comes it is apt to form a crust on the surface, which prevents the plants from coming up. I think it better to sow after a shower if possible, while the ground is damp and the crust does not form on the surface as it would if they were sown before a shower, besides the ground is better for being a little solid, as the seed does not need to be so deep. The best time to sow is about the 20th of June; any time between the 15th and 25th will do very well, but if the weather, or other things, are unfavorable to sowing at that time, I would not be in a hurry. I have seen a good crop of turnips that were sown on the 12th of July. We usually sow about 2 pounds of seed per acre; some persons sow 2½ or 3 pounds. Of course a much less quantity would be sufficient if it all grew. but it may not all germinate, or the fly may come in for a share, and it is well to have enough, as the additional expense is only trifling, besides you have a better choice of plants in the operation of hoeing and thinning.

As soon as the plants are large enough, they must be thinned by striking the hoe across the drill, cutting out the width of the hoe, and leaving only one plant in a place. After a little practice it will never be necessary to use the hand in separating the plants, and a good hand can hoe three-quarters of an acre a day. The hoes should be from 7 to 9 inches wide and straight in the head, so as to be used in pushing from you as well as pulling towards you.

Persons unacquainted with turnip culture are very apt to fall into the error of leaving the plants too thick, but experience teaches us that under no circumstances should they be less than 9 inches apart, and I think that 12 inches is decidedly preferable. It will be seen in harvesting that where they are thin they are much larger, and there is less expense in harvesting large turnips than small ones. In the operation of thinning there is room for the exercise of some good judgment; care should be taken to select the largest and healthiest looking plants, and in order to do this it is better to

cut out several small ones even if it makes a much wider blank than usual. The soil should be well moved around every plant so that it will fall over; they will bear a good deal of rough usage, and be better for it. The crop will pay for being twice hand-hoed. The horse-hoe should be freely used from the time the plants are large enough for hoeing till they are too large to admit of its passing between the drills. I am so well satisfied of the benefit of horse-hoeing that I believe it would pay to run that imple ment through them once a week.

The quickest and easiest mode of harvesting that I know of is to cut the tops off with hoes; the hoes should be ground pretty sharp; then plow them out, taking the mould-board off an iron plow for the purpose; the plowshare cuts off most of the roots, and pushes the turnips out of the ground.

For storing, nothing is better than a cellar. A cellar under a driving house or barn, with trap doors in the floor, is very convenient, and here we use an arrangement to prevent the earth from going into the cellar with the turnips. It is a sort of grate or riddle made of two pieces of scantling or plank ten feet long and two feet wide, with bars of iron put in crosswise about 2 inches apart, and two legs bolted on to one end to elevate it to a slanting position. The turnips are thrown on to this and roll into the cellar, while the earth falls through upon the floor. It is very important to keep the earth from going into the cellar, as it prevents the circulation of air among them, and causes them to heat and rot. Whenever the weather is mild all the doors and windows should be be left open, as there is more danger from heating than from freezing where they are stored in such large masses. If they should heat, it can be detected by the smell, and in that case they must be picked over, and the injured ones removed. If the floors of cellars and root houses could be constructed of scantling or narrow planks placed a couple of inches apart, so that a current of air could pass under and up through them, it would be a great improvement.

Where sufficient room in cellars cannot be provided, they may be kept tolerably safe in pits. Dig a trench 4 feet wide, and 8 or 10 inches deep: fill in and shape up to a point; cover with straw 8 inches deep, and then about seven inches of earth, leaving the top open 6 inches wide, and cover with wide boards, to throw off the rain. They should be taken out of the pits early in spring, and put in the barn.

For young animals turnips must be sliced, but cattle and sheep from two years old upwards will eat them very well without being cut, and are not any more liable to get choked. Young sheep, or sheep that are being fattened, may with safety be fed all the turnips they can eat, but it is not good to give a very large supply to breeding ewes. Cows will eat a bushel and a half a day, but a man must have plenty to feed at that rate. Hogs will winter very well on turnips.

The above remarks apply only to *Swedish* turnips.

Potatoes.—It is said that West Pawlet, Vt., probably sends off more potatoes in a year than any railroad station in the country, the amount some years reaching 160,000 bushels. They are sent in lined freight cars heated by stoves. The yield last year was from 200 to 400 bushels of marketable potatoes per acre, and the average price has been 70 cents.

THE WIREWORM.

EDS. OF CO. GENT.—In your issue of Jan. 12, J. P. of Chautauque Co., N. Y., makes inquiry respecting "the natural history of the wireworm, that worst of all plagues on our clayey lands."

For several years past some of our farmers have had their growing corn, and some other of their crops, badly injured by the ravages of the wireworm. From the complaints of many persons, I am inclined to think this "pest of the farm" is largely on the increase in this section. And I cannot learn as any one has discovered the means of destroying it, or of lessening its ravages either in their corn or grain fields.

For the benefit of J. P., and perhaps other readers of the CO. GENT., I will copy from a recently published paper on the wireworm, by Townend Glover, Esq., the able entomologist of the Department of Agriculture, Washington, D. C.

Mr. G. says, "The true wireworm is the larva of a species of elator, or click beetle, commonly known by the trivial name of snapping bug, from its habit of being able to throw itself some distance in the air with a sudden click when laid upon its back; it is said to pass five years in the larva or feeding state, and resembles the common meal-worm, the body being cylindrical, very tough, of a yellowish brown color, and furnished with a distinct head, and only six legs.

"Wireworms feed upon the roots of plants, and are thus very destructive to vegetation. Curtis states that "soot and lime," "chloride of lime waters," or "nitrate of soda, will destroy them." He likewise says that "spirits of tar and sand," or "refuse lime from the gas-works," will have the same effect, and that salt on light lands is highly efficacious."

"A writer in the American Agriculturist observes, however, that salt, two or three bushels per acre, will have no effect, and that two bushels per rod (320 bushels per acre,) did not stop their ravages. Another writer recommends corn cobs, with the idea that the worms will burrow in the cob, and leave the crop unmolested. This, however, is not very probable. Some farmers recommend fall plowing as destroying the grubs, by turning over the sod, and thus bringing the grubs to the surface, where they will be quickly found and killed by birds and small animals.

"Harris and some English authors, recommend "sliced potatoes or turnips to be strewed in rows in the field or garden, as a bait for the wireworm;" the pieces to be examined every morning, and the insects which burrow into them to be collected and destroyed." This, however, would be practicable only on a very small scale. A writer in the Scottish Farmer states that the late Mr. Pusey found rape cake had the effect of destroying numbers of the wireworms and when grass land is very much over-run with them, it is also said to be advisable to pare and burn the sod. Moles, crows, and other birds, eat immense numbers of these larva."

From the foregoing it seems the farmer has but small prospect of preventing the ravages and increase of the destructive wireworm, and I regret that I can not afford J. P. more "aid and comfort" in his trials with this "worst of all plagues on his clayey lands."

Warner, N. H. LEVI BARTLETT.

HIGHWAYS SHOULD BE ORNAMENTAL.

A great improvement would be made in the appearance of the whole country if our public highways were planted with ornamental trees, and kept in neat condition like landscape gardens. The laws of the State of New-York, passed in 1862, excluding domestic animals from public roads, renders this of comparatively easy attainment. They need not now be rooted up nor disfigured by swine, nor polluted by the droppings of cattle. Trees need not be injured or killed by animals rubbing against them. Roadsides should be rendered smooth in surface, both for the purpose of improving their appearance, and rendering them capable of being easily mowed with the scythe or mowing machine—the hay thus obtained will be more valuable than the pasturage, if cut but once or twice in a season. They must be cut oftener where it is desired to maintain a high polish, like that of a finished lawn. Were this treatment adopted generally in any considerable portion or district of country, it would not only render farms of a higher value in market, but would have a civilizing and refining influence on the community.

We are sorry to observe, in many places, that highways are regarded as receptacles for all kinds of rubbish and refuse matter. We recently had occasion to ride through one of the streets of a large village, reported as one of the neatest and most respectable in the State. In a distance of thirty rods in length we observed the following materials, which we copy from a memorandum made on the spot: Dirt from a cellar, coal ashes, straw from beds, rotten pieces of plank, a broken saw horse, a defunct wheelbarrow, rotten cabbage and cabbage stumps, trimmings of trees, rose prunings, hoop skirts, stones thrown out of an adjacent garden, barrel hoops, boots and shoes, and old tin pans bent in all shapes by passing wheels. A ride through the country, was scarcely less interesting. One farmer had piled along the roadside the trimmings of his apple orchard, amounting in all to several wagon loads, among which burdocks and nettles had grown up in profusion; another had made a long pile of cord wood the preceding winter, a part of which had fallen when the snow melted, and obstructed the track; another had carted out a load of old plaster and broken lath, and discharged in addition into the middle of the track a large pile of rotten potatoes; and a fourth, for the purpose of economizing land, had set his barn on the edge of the road, so as to make his barnyard in it, and had then variously filled it with fractured wagon wheels, dismantled carts, rusty plows, decayed rollers, superannuated harrows, piles of old boards, scattered cord wood, sleds with broken runners, empty barrels, uncarted manure, and some old boxes.

We passed to another neighborhood, where the people had from the first enforced the cattle law. The roads were smooth and neat, trees had been planted along their margin, the grass had been mowed for hay, a part of which had been drawn off, leaving the sides of the carriage way smooth and green, and in other places the hay yet remained in cocks. Although there was still room for considerable improvement, it was not difficult to decide which neighborhood would be chosen by any purchaser of a farm, or which would bring the highest price.

Villages, of all places in the world, should not be infested by animals running at large. We have recently made a careful estimate of the amount of pasturage in one of the villages of this State, with which we have been familiar. The aggregate length of its streets is about two miles. The only grass growing in them is a strip averaging about four feet wide on each side of the carriage track, and between the latter and the flagging—or eight feet in breadth for each street. The more active business streets have no grass. Eight feet wide and two miles long forms an area equal to two acres—not better than one acre of good pasturage. In order that a few vagrant cattle might gnaw this thin grass, the following inconveniences were submitted to before the cattle were excluded: The constant watching of at least one hundred garden and door-yard gates, at all hours of the day, and their careful security at night—the occasional loss of a fine patch of cabbages in some poor man's ground, who could not afford so strong a fence as his neighbors—the spattering of the flagging with cow droppings, greatly to the annoyance of every well dressed lady, and the terror of little children on their way to school at the sight of animals on the path. The compensation for all this annoyance is *one acre of pasturage*—equal to the keeping of a single cow. It will not be difficult to say on which side the balance lies.

The definition of a "*weed*" has been given as a plant growing in the wrong place. We want another word to apply to animals running where they should not, a much greater nuisance than weeds, as the latter may be removed quietly and without trouble, while the former must be watched, chased down and excluded at a heavy expense of time, strong fences and secure gates, costing a thousand per cent. more than the whole value of the animals.

LETTER FROM VIRGINIA.

Burkesville Junction, Va., May 16, 1865.

Messrs. Tucker & Son—Thinking that your readers might like to know how things are progressing in this part of the ex-confederacy, I take pleasure in giving the result of my observation and conversation with farmers of this locality, with whom I have held conversation in my rides on the various roads leading from this place. I do this the more readily, because I think if the state of affairs were more accurately known, a great many enterprising young farmers would come down here and settle, much to their advantage.

First I will say a few words in regard to the soil. As far as I have seen, from Petersburgh to Appomattox Court-house, and from Burkesville to Danville, the land is of a sandy loam, with a subsoil of stiff clay, slightly undulating, well wooded and watered; mostly hard wood toward the north and central section, and pine towards Petersburgh and Danville. It is divided into large plantations, varying from 800 to 2,000 to 3,000 acres, two-thirds of which is generally left in woodland and deserted tobacco fields; no effort being made to fertilize any of the soil—but it is used as long as it will bear a crop enough to pay for its cultivation, and then it is abandoned for some new land reclaimed from the woods. The soil in some places is quite rich, and with a good system of drainage and tillage, would make excellent farms.

The system of cultivation to which it has been subjected is as follows: A certain number of acres is put down in corn, hay, oats, wheat, &c., but only enough to support the hands and animals necessary to work the farm; the remainder is put out with tobacco, and quite a quantity of cotton is grown in this neighborhood. Now the whole of this is sold off the plantation, and for it there is not the slightest return of manure to the soil with the exception of four or five horses and quite a limited number of cows, there being no such a thing known in these parts as a "Dairy farm."

In preparing the soil for such crops as would give a fair return to the soil, such as those for home consumption, the plan of skim-plowing is adopted, the plow used here being quite a novelty to northern eyes; it is a little, old-fashioned, one-horse plow, that goes about four or five inches below the surface, and barely turns over the sod at that.

In sowing corn on land on which corn was raised the previous year, the method pursued is this: The plowman starts and plows a furrow between the old ones—much after the way we cultivate at the north—and the field presents the appearance of one old and one new furrow, alternately. In the new one the corn is sown, and when it springs up, the old furrow is hoed down around the corn. Thus you will see that scarcely a field is plowed over all at once.

Remonstrance with the inhabitants is useless; they will admit that they are wrong, but their plea is that it is the old way, and they have lots of land to go to as soon as the part under cultivation runs out. I have talked and argued with them until I have nearly lost all patience, so I have taken the plan now of distributing my old numbers of the "COUNTRY GENTLEMAN" to them, and I need scarcely say that they are sought after with avidity.

I should like you to have seen the surprise of the most of them on looking over the advertisements, and seeing the engravings of the "Patent Plaster Sower," "the Patent Potato Planter," "Hay-Fork," &c. One old farmer remarked to me, that "You Yanks beat all natur' in inventing machines to save labor, and are always successful. I wish I could get a good honest Yankee to work my farm for me."

Now this is the point which induced me to write. They are fully convinced that northern energy is the element which they lack, and they are anxious to have northerners come down and settle among them.

There is a fine chance for young men of small means; they could get all the land they wished to work, on shares, with colored labor in abundance and cheap, and a ready sale for their crop at their own door. Quite a number of farmers have expressed a desire to hire out their land, or a part of it, to some enterprising Yankee.

The weather here is very warm, and such things as were planted in season are very forward. We buy ripe strawberries, green peas, lettuce, &c., here already.

The prevailing opinion here is, that for want of means to work the land, there will not be sufficient crops raised to support the white population alone the coming winter.

The Sixth corps moves from this, en route for Alexandria, on Thursday, the 18th inst.

THOMAS H. BENTLEY,
Hospital Steward, 121st New-York Volunteers.

Feeding Barley and Rye to Mares.

MESSRS. TUCKER & SON—Thinking perhaps my experience might be of advantage to your correspondent W. R., as well as others, in reference to barley and rye as food for horses, and particularly for brood mares, I, as one of your subscribers and constant readers, accept your invitation to answer W. R.'s inquiries.

In reference to barley as a food for work and driving horses, I think it has no equal, being very safe, nutritious and palatable. There is no other grain that horses will eat and relish as long, without a change, or thrive better on. It is less liable to founder than corn, wheat or rye, yet contains but very little less nutriment than either of those grains.

My first experience in feeding barley to horses was in California, where there was no other grain raised for feed at the time I was there. All our horses were fed on it for two years without any change, and never got tired of it, always thriving and looking remarkably fine for the amount of labor they performed This induced me to raise it to feed after my return from that country, and I have learned to esteem it higher than any other grain (when ground) for horses. It is too hard to feed in the grain.

I have raised a great many colts, and have made breeding trotting horses a study, and in all my experience I have found nothing equal to barley meal to make a mare give milk. I have found it no disadvantage to a mare's getting with foal, and not any while she was so. Oats are a better feed for colts from weaning time until they go to work.

Rye is a dangerous grain to feed alone; it is more liable to founder than other grain; but to mix with shorts, or to grind with oats, and feed with cut hay or straw, it makes an excellent feed. Instead of its being a preventive to pregnancy in mares, it is an advantage. I own and keep for service one of the finest and most promising young trotting stallions in the State; and if any one has a mare they wish to put at a certain time, I always recommend feeding the mare boiled rye, blood warm, to get her in season, and it never fails to do its work in from three to five days, and I never knew a mare to refuse the horse after such treatment. Three quarts, three times a day, is good feeding. This discovery may be of great value to breeders, and save an enormous sight of trouble. This is the first letter I ever wrote for publication, and I have written it for the good of W. R. and the rest of my fellow horsemen. H. C. W.

Glen Cove, Queens Co., L. I.

Sales of Stock.—GEO. J. PUMPELLY, Esq., Owego, has lately purchased from the Short-Horn herd of Hon. EZRA CORNELL, Ithaca, the four-year old prize bull at Rochester, "St. Valentine," bred by R. A. Alexander of Kentucky, got by 2d Duke of Airdrie, dam Lady Valentine.

SAML. J. SHARPLESS, Esq., of Chester Co., Penn., has just added to his already beautiful herd of Alderney cattle, some very choice squirrel gray and fawn colored heifer calves of the Alderney breed, purchased of J. B. Okie of Delaware Co., Penn., at prices ranging from $125 to $230 per head, ages between one and two years.

Messrs. C. W. & E. P. Haynes, Barre, Mass., have just bought of S. W. Robbins of Weathersfield, Ct., a Short-Horn bull calf 7 months old, got by Duc De Argentine, 4703 A. H. B., out of Maid Marion 5th, bred by R. A. Alexander of Kentucky. Duc De Argentine was got by 2d Grand Duke (12961,) out of Darlington 6th, &c.

The "Great Improvement" in Sheep.

The New-Hampshire Journal of Agriculture quotes from an exchange various assertions as to the wonderful "improvement" in Merino sheep claimed by some to have taken place within five, ten, fifteen or twenty years, and adds the following statements:

Now this *improvement* begins about the time that the *shrinkage* in fine wool began to increase. Fifteen or twenty years since the shrinkage in fine wool in New England was but 35 per cent., and it has been increasing every year since, until *to-day* it is from 48 to 54 per cent. on selected, washed wool, and upon unwashed wool it is 72 per cent. No wonder that *wool pays* when *dirt is sold for wool.*

But people are loth to believe that fine wool shrinks at this rate. We have an incident in point. The owner of a flock of fine wooled sheep, came not long since to one of the heaviest manufacturers of wool in the parts, and wished to sell his clip of wool. The manufacturer said that its shrinkage was so great, that he did not wish to buy. "But," said the grower, "my wool does not shrink a great deal." "Well," was the reply, "if your wool does not shrink in cleansing badly, I will take it. You may bring me five or ten fleeces as a sample, and I will look at it and buy the lot if it be as you say." In a few days the grower came with five fleeces of wool. It was examined. "Now," says the manufacturer, "your wool will shrink 50 per cent. in scouring." "No, that can't be." "Well, I will scour it and for every ounce it yields over 50 per cent., I will give you a gold dollar." "Agreed," said the grower, and the wool was scoured. "Now," said the manufacturer, "you must take the wool home and dry it, for the shrinkage will be so much, that if it were dried here, you would think we had taken some of the wool out of the parcel!" So the grower took the wool home to dry it and have it weighed! *But he has not come back for his gold dollars!*

In an answer to another assertion on the part of those who cultivate "heavy fleeces," we have the following:

No! the manufacturer will not pay a bounty of 68 cents on oil, nor "*washed* prices for wool *wet* in June and sheared in July." He won't buy it at all, and the clip of one, two and three years will remain on the farmers' hands. "That's what the matter is."

"A Vermont Farmer" is contributing a series of articles to the Brattleboro Record, on the sheep of that State, in which he ascribes the excellence of Vermont Merinos,—1. To their having had a better foundation to start from than any other State, in having more and better full-blood sheep to breed from; and, 2. To there having been more and better practical breeders. "And yet it does not follow," he goes on to say, "that the greatest excellence has been attained, or that no errors have been committed—no, nor even that the sheep that have been sold highest are really the best sheep.

"While some have bred mainly with a view to the growth of wool—and these would seem to be the most legitimate wool-growers — many others have bred wholly with a view to the sale of sheep, and in this they have succeeded. And yet this does not prove that the sheep so sold were the best that could have been raised, or the best that have been raised. They were good for the seller, perhaps the best, in view of the profit he has realized from them. But were they the best for the buyer? If he can raise others from them and sell for similar prices they may be. But is this probable? It certainly is not sure to be so. A peculiar concurrence of circumstances has favored the sale of a peculiar kind of sheep. The manufacturers have either heedlessly or foolishly, purchased their wool in such a way as to favor the growth of gum and grease rather than wool. They have made it profitable for the grower to raise fleece composed of one quarter wool and three-quarters gum, grease and dirt, and thus they have made sheep that yielded fleeces of this kind the most saleable. This has laid the foundation for our great sheep sales. This has given rise to the great call for heavy fleeced sheep, without regard to the amount of cleansed wool to be obtained from them.

"But what if there should be a change of policy in this respect, on the part of the manufacturers? What if the buyers should adopt a common sense practice, and should discriminate in their purchases so as to pay for only what they want to buy? What if they should buy in such a way as to make every fleece more or less valuable exactly in proportion to the amount of actual wool in it? What would be the effect of that upon the selling and the breeding of sheep? Why, then the man who should want to procure a superior ram for breeding purposes, instead of paying $1,000 or $5,000 for that whose fleece is made up of six pounds of wool and eighteen pounds of gum, grease and dirt, would sooner pay the same for one that yields seven pounds of wool, even if his whole fleece uncleansed should not weigh more than twelve or fourteen pounds, and even if it should not look so black as to make the sight of it dangerous to breeding ewes, lest it might cause them to have black lambs. Such sheep may then be preferred, even if they do not look any darker than it is natural for good full-blooded Merino sheep to be without any extra housing, pampering, or blackening over in any unnatural way whatever.

* * * *

"It is true this state of things has not yet come, and that our sheep breeders who have gone in for gum rather than wool, have done the most cunning thing they could do as far as selling sheep is concerned. In this they have certainly been shrewd and successful. They have succeeded in raising sheep which, although perhaps of less value for any other purpose, have commanded higher prices than have ever been paid before. But there are strong indications that a different state of things is soon to take place. 'If coming events cast their shadows before,' then there is something indicated by the shadowy masses of heavy wool now lying unsold in the wool-rooms of many Vermont farmers. The clippings of several successive years are remaining unsold."

HOW TO MAKE CORN-PUDDING.

"But have you nothing farther to tell me," she continued, "about corn-puddings?"

"I have," I answered; "and as many other persons besides 'H. Franco' may like to eat of corn-puddings, and as I know you will be likely to circulate the account through the sewing-circle"—here Mrs. Gray looked vexed—"I will give you the recipe for making this truly delectable dish, which is of Indian origin, improved upon by the Quakers, and which, when eaten, should constitute the sole repast of what is known in Nantucket under the name of 'tea.'

"Take four dozen full ears of sweet green corn"—here I got off the fence, and began to pluck the ears—"score the kernels and cut them from the cob. Scrape off what remains on the cob with a knife. Pound the corn cut off in a mortar. Add a pint and a half or one quart of milk, according to the youngness and juiciness of the corn. Add four eggs well beaten, a half tea-cup of flour, a half tea-cup of butter, a tablespoonful of sugar, and salt *quantum sufficit.* Bake in a well-greased earthern dish, in a hot oven, two hours. Place it on the table browned and smoking hot, eat it with plenty of fresh butter and be thankful."

Having by this time picked the necessary number of ears, I gave Mrs. Gray to understand that we would go home, and that I would immediately proceed to make the pudding, which, much to the indignation of the cook, and the intense delight of the black boy, I did. My wife, when we came to eat it, declared it was equal to anything of which she had ever partaken, and declared that if I would only go to New-York and open a corn-pudding shop, I might make my fortune—*My Married Life at Hillside.*

Comfort and Economy in the Kitchen.

Owing to the great advance in house rents in our large cities, living in apartments in a style and comfort superior to our tenant-house system, has been suggested and widely discussed, and its advantages and disadvantages pointed out. Only those who are acquainted with the system, are aware of how unprepared we are to adopt it, and to reap all the advantages it promises from its working in other countries.

We will here notice the difference in our kitchens. The American kitchen is ordinarily a room large enough not to be over-heated in winter by a stove or range of sufficient capacity to do its work for the family, a large per centage of its heat being radiated in the room, and worse than wasted for six months of the year, as the overheated atmosphere is injurious to those employed in the kitchen.

The least possible space is allotted to the European kitchen, consistent with the work of cooking. It is not, as with us, also a servant's dining-room and laundry, but exclusively a kitchen, and the cook can conduct her work more comfortably in these little kitchens, than we do in ours, for their cooking range or stove is provided with non-conducting surfaces, porcelain tiling generally, and over the range a ventilating shaft, so that the heat, smoke and odors are readily drawn off. A man will patiently bear the smell of his own dinner, but not as patiently that of his neighbors.

During the summer months freedom from over-heating is very desirable, as comfort and economy should be attained thereby. It will occur to the reader, how are you going to procure sufficient warmth in our climate in winter? We reply, by having the non-conducting surfaces movable, and upon the approach of cold weather remove them, or have the non-conducting sides stationary, and the kitchen heated by a register from the furnace which heats the house. These detachable plates could be made to slide in grooves made in the top and bottom plates of the stove. The saving in one season would more than offset the cost, to say nothing of the gain in comfort.

For economy in cooking and heating apparatus, Mr. P. P. Stewart of Troy, N. Y., has accomplished a great deal—not so much by any great novelty in his inventions, as by the great care and perfection he insists upon in their manufacture. Although his stoves were for years struggling unequally against many of less cost and inferior workmanship, they now have a most extensive sale.

Mr. S. was, we believe, the first to make application in this country, of non-conducting sides and bottom to stoves; but as the question of economy has not, owing to the low price of fuel for some years past, interested the public, these attachments, (except the bottom one,) are not generally known, and are rarely called for.

An efficient cooking range or stove so constructed that it will do its work economically and with the greatest comfort to the cook, promises an ample reward to the inventor. Although gas and petroleum do not give as much heat as equal values of wood or coal, still in many cases they are a cheaper fuel; being under more ready control, the consumption can be instantly checked. When we consider the abundance of petroleum, its freedom from dust, no removal of ashes, it commends itself to the summer kitchen, and as an important adjunct to a stove or range for small operations where the delay and trouble of kindling coal or wood would be objectionable, and more expensive.

Much remains to be done towards making cooking more agreeable as an accomplishment, as well as a necessity, and every step in this direction will interest more talent and intelligence in a knowledge of this important art.

X.

THE MAGPIE—*Pica hudsonica*—BONAP

Two species of Magpies inhabit North America, the Yellow-billed Magpie (*Pica nuttalli*, AUD.) and the common Magpie (*Pica hudsonica*, BONAP.,) which forms the subject of the present article. The former we believe has only been found in California, but the latter inhabits the larger part of the Arctic regions of North America.

The Magpie is a wary, crafty and mischevious bird He destroys the eggs of various small birds, and frequently also kills and eats their young. He feeds on carrion when compelled by hunger.

RICHARDSON gives the following measurements of English and American eggs: American eggs 1 inch, lines 3½; breadth 0 inches, lines 7.

English eggs, length 1 inch, lines 2 7-9ths; breadth 0 inches, lines 7¾.

J. P. NORRIS.

RECIPE FOR HARD SOAP.

In your paper of 6th of April, Mrs. H. D., inquires how to make hard soap. We do it here by using 3 lbs. of quick lime, 6 lbs. of washing soda, 6 lbs. of grease, 4 gallons of water.

Boil the lime, soda and water together for 12 minutes, and let it settle. Throw away all white water and settlings, and put the clear liquid into a pot with the grease, and boil together half an hour, or until it looks like soft soap, when it can be moulded in any manner convenient, and placed to dry. When perfumed it makes a very good soap for the toilet. O. E. F. *New Brunswick.*

Onondaga County.—Hon. GEO. GEDDES writes us under date of Fairmount, N. Y., May 1st:—

"The last month has on the whole been favorable for the farmers to do their work—and grass and wheat are unusually forward for the first day of May. Our cows have been turned during the middle of the day on an old pasture, for the last two weeks, so that they are now giving us milk that makes yellow butter. Of course we continue feeding hay, nights and in the mornings. This is a thing we have never done before, that is, turn out our cows before grass was well started, so that they could make their entire living on it. I am pleased with the working of this new way of getting from hay to grass. Wheat on the whole looks well, and is so well started that I shall not expect to see *rusty* wheat this year—nor shall I expect trouble from the midge—these are the enemies of wheat that is backward in the spring, so far as my observation goes."

THE CULTIVATOR.

ALBANY, N. Y., JUNE, 1865.

Quo Warranto---The Organization of Societies.—When we see accounts of the organization of "National" and other associations purporting to represent certain localities or districts, we cannot avoid the conclusion in many cases, either that those concerned are ignorant of the principles of justice and propriety involved, or that they purposely design to mislead and deceive. By what right do a score, or a hundred men, worthy persons though they are, presume to speak for any other communities than those in which they themselves reside? A society, to be in any sense "National," should be formed by representatives from at least a majority of the different localities thus associated. It is very easy to make out a string of Vice-Presidents, "one from each State and Territory," and looks well on paper—possibly. But it is a wholly gratuitous operation, unless the appointing power is delegated by parties who can really speak for the whole region thus embraced.

These remarks have been occasioned by the organization of a so-called "National Poultry Association" in an eastern town, but are not intended to apply in an especial or invidious way to any one therein engaged. We wish simply to direct attention to the evils and impropriety of the whole thing. If the pretensions involved were not often as ridiculous as those of the famous three tailors of Tooley Street, greater harm might be done. But we are too apt, often, to pardon the ambitious zeal of well-meaning men, if it outruns their discretion in what is not intrinsically an objectionable undertaking. A different standard should be recognized and insisted on. Where a certain district is to be represented in a Society or Association bearing its name, whether it be a county, a State, or the nation at large—either through a call for a convention, or some other means, the whole district concerned should first be apprized of the movement, and those interested have the opportunity afforded them of uniting in it.—And if any considerable part—certainly if a majority, of its different parts, abstain from countenancing or taking part in the scheme, it ought only to bear the name of those who *are* actually its sponsors and participants. No report of meetings held for the organization of Societies should carry any weight, unless it is distinctly specified who, and in what numbers, and from what localities, they were whose proceedings are recorded.

All this, we are quite aware, is nothing new, either in principle or precept; but it is so often disregarded now-a-days, that it seems well to go back to what is just and right, and to enter a most decided protest against the promulgation or public countenance hereafter of names not clearly and indisputably authenticated. And if we ever feel called upon to apply these principles to particular cases, it will be done only as insisting upon what is an inalienable right of self-protection on the part of the community at large, and not necessarily as impugning the personal motives of those implicated.

"Facts about Peat."—This is the title of a very nicely printed volume in paper covers, of 120 pages—compiled by T. H. LEAVITT, and published by Leavitt & Hunnewell, Boston—price One Dollar. It reviews the origin and composition of peat, the ordinary methods of its preparation for fuel, the different deposits of it, in greatest quantity, in other countries, and in our own, the uses to which it may be put in the arts, &c. All this is interesting, and has evidently been prepared with care. By an appendix we learn that the publishers are the Agents of a Company in process of formation, owning the patent for a new process for the preparation of peat; which process is stated to have been "thoroughly and satisfactorily tested." Although the prospectus of the company reads in some respects a little like those of the Petroleum and other speculations just now so much in vogue, and we do not find any description of their process sufficiently detailed to enable us to form an opinion of its probable value,—still if it is such that it can be applied without too great outlay, and will yield an article of fuel comparing favorably with wood and coal at a cheaper price, the subject is worth the investigation of those having beds of peat at hand where a ready market for it could be obtained. We do not understand whether it is the *main design* of the company, with its proposed capital of $250,000, to get out peat for sale—they have, it is stated, 140 acres of peat lands for the purpose—or whether it is to manufacture machinery for the use of others; or, in either case, how large a proportion of the sum named is to go to the owner of the patent for his right, and what amount would really be required to carry out the purposes of the patent alone.

Alderney Cattle—Advertising.—Perhaps no single class of stock has been in as constant and good demand for several years back, as this. A gentleman who lately advertised a bull and cow two or three weeks in the COUNTRY GENTLEMAN, writes: "There is either a great demand for Alderney cattle in the country, or your paper is *the best advertising medium*, as I have had more than fifty letters in answer to my advertisement."

Advertising alone, we may remark, will not *create* a demand, where *none exists*—a fact which accounts for those cases in which the experiment is unsuccessfully tried; but where the article advertised *does* meet a public want, the return obtained from giving publicity in this way to where it may be had, is very certain and very quick. We constantly receive letters speaking in the highest terms of the results derived from advertisements in the COUNTRY GENTLEMAN and THE CULTIVATOR, as surpassing all expectation, but the constant pressure upon our space speaks more loudly even than these verbal compliments. We should not hesitate to challenge a comparison of the results of advertising in our columns, with that in any other periodical in which the price charged is even double our own; and for some classes of Live Stock, Farming Implements, Manures, Seeds and Nursery products, we should not pause at this limit—believing that to secure customers for these the COUNTRY GENTLEMAN has no superior at any price.

School of Mines.—A school of Mines was established last year in connection with Columbia College, New-York City, the first terms of which during the winter have been very fully attended. The ability of the corps of professors connected with the institution, the advantages of its location, and the rapid development of mining enterprizes in the country, are such as will probably enable the trustees to render this fully equal to many foreign schools of the kind now frequented by American students. Dr. CHAS. F. CHANDLER, late of Union College, Schenectady, accepted the chair of Chemistry on the organization of this school, and may be addressed at 246 East 51st street, New-York, for farther information.

Short-Horns.—F. M. Wood, Esq., of Grafton, Mass., has purchased of H. G. White, South Framingham, Mass., the following Short-Horns:—Ada, by Earl of Warwick 465—dam Atlanta 3d by Logan 2d 652; Governess 4th by Duke of Orleans 3877—dam Governess by imported Governor (12857,) and Dawn 2d by Monitor 5019—dam Dawn by Earl of Warwick 465.

N. Y. State Agricultural Society.—The Premium List for the next State Fair, to be held at Utica, Sept. 12-15, is now ready, and copies may be had by addressing the Secretary, Col. B. P. Johnson, Albany. There is every reason to hope for an exhibition of great extent and interest. We trust that the lack of general competition among our cattle men for the last year or two, may be made up by an unsually good turn-out the present season. The Short-Horn certainly cannot afford to stand in the back ground. For the Devon, the re-opening of the Southern market may be expected to create a new demand. Our dairy farmers—and Utica is almost in the centre of the great dairying interests—were never more wide awake, and those who have Ayrshires and Alderneys should not fail to be on hand. In Fine Wooled Sheep similar inducements, as we have already shown, were never before offered in this State, nor, to our knowledge, in any other. As to the Mutton breeds, it concerns the honor of our breeders, who were under such a cloud as to numbers, at Rochester last year, to retrieve their reputation in this respect.

It is expected that arrangements will be completed by which with the co-operation of the Cheese Manufacturers' Association, a magnificent display of this important product will be secured. Five hundred or a thousand of the best cheeses turned out by the standard Factories and farmers of Central New-York, will be a display of unprecedented character, and should attract all who are concerned either in the manufacture or purchase of the article.

Smoothing the Surface of Lawns.—A friend inquires the best mode of changing a rough and uneven grassy surface, in his door-yard, to one that is perfectly smooth and even, so as to admit shaving with the scythe within half an inch of the surface.

There are three ways of accomplishing this purpose. Where the irregularities are slight, sand or fine soil may be spread over the surface, filling up the cavities; through this the grass will grow. Successive applications may be made when required. Another mode is to spade up the whole surface, making it perfectly smooth and even, and then re-seeding. If the extent is large, the same result may be attained by plowing, grading and harrowing. The amount of seed should be 7 or 8 times as much as for common field seeding. If a close, dense, smooth carpet of grass is desired, the third mode, and in many instances the best for a limited extent, is to pare the turf carefully from the whole surface, then render it perfectly even and replace the turf. This operation must not be performed by a bungler, but so skillfully accomplished that the lawn scythe may pass over the ground and shave the grass within half an inch of the surface throughout.

Connecticut.—The Faculty of the Sheffield Scientific School at New-Haven announce their Course in Agriculture, to open Sept. 13th next. We have heretofore given the names of the professors particularly connected with this department of instruction. The course will occupy three years, like that at the Rutgers Scientific School already alluded to—the first year mainly preparatory, including the English and French languages, physics, mathematics, botany, chemistry and drawing. The requisites for admission are somewhat higher in mathematics and natural philosophy than at Rutgers, but both in agriculture and in other studies, the general outline covers somewhat similar ground in both. The charge for tuition is $100 per annum at New-Haven; $75 at Rutgers.

Instruction during the second and third year is to be mainly by lectures, illustrated by specimens, experiments and demonstrations. The school has no farm at present, but excursions in the vicinity will supply means of observation. Collections of various objects of interest, and an agricultural library and reading room are to be supplied as soon as possible.

A shorter course is also to be provided, during the seven winter months, for those who cannot attend the full year.

Agricultural Colleges.—At a meeting of the Corporators of the Vermont Agricultural College at Montpelier, May 2d, Hon. JUSTIN S. MORRILL was chosen President, and resolutions were adopted making each corporator a committee in his own county, to procure subscriptions to the fund of $100,000 required by the act; appointing a committee to report a plan for the permanent organization of the College; appointing a committee to draft an address to the people of the State; and appointing a committee to confer with each of the Colleges in the State, with a view of merging any or all with the Agricultural College. Unless $100,000 shall be secured before the 15th of November, the project fails. Three of the corporators have pledged one thousand dollars each *unconditionally*. The following gentlemen are Trustees, with terms of office as respectively drawn:

1st class, holding office two years.—Horatio Herrick, L. H. Tabor, Roderick Richardson, Frederick Holbrook, G. G. Benedict, Secretary.

2d class, to hold for four years.—Horace Fairbanks, Edwin Hammond, T. W. Park, Elijah Cleveland, S. H. Stevens.

3d class, to hold for six years.—S. M. Dorr, Justin S. Morrill, President, Peter T. Washburn, O. G. Wheeler.

The Trustees of the Maine Agricultural College have organized by the choice of Hon. Hannibal Hamlin, of Bangor, President; S. L. Goodale, of Saco, Secretary; Phineas Barnes, of Portland, Treasurer. Three propositions have been submitted to the Board, viz.: Hon. F. O. J. Smith's farm at Gorham, B. F. Nourse's farm at Orrington, and the Togus estate in Chelsea. In the two former the owners propose to give the property outright to the State; the latter proposes to have the land appraised by disinterested persons, and then sold to the State, the amount received to be given to the institution.

The Washington Co. Sheep Breeders' and Wool Growers' Association.—The first exhibition and public shearing of this Association was held at North Granville, May 4th and 5th. The exhibition was much larger than was anticipated,—many Vermont breeders exhibited their sheep, and some of the neighboring counties were well represented. The Association is found to be a complete success. There were between one and two hundred entries; some thirty were shorn on the ground. It was decided to print a full report in pamphlet form. Those desiring them should address the Secretary, Isaac V. Baker, Jr., at Comstock's Landing, N. Y. This Association, we are informed, now numbers about one hundred and fifty members, all sheep breeders and wool growers, and nearly all are residents of the county.

Country Gentleman Prize Essays.

1. ROTATION OF CROPS.—For the best Essay derived from the experience and observation of the writer, on the rotation of crops in general farm management, adapted to the practice of this country, including an outline of the treatment of the crops comprising the rotation—*Twenty-Five Dollars.* And, for the 2d best, *Fifteen Dollars.*
2. FINE WOOLED SHEEP.—For the best Essay on the Breeding and Management of Fine Wooled Sheep, including both flocks that are mainly kept for breeding purposes, and those of larger size, either at the east or west, where the wool clip is the great object, and economy in attendance an important requisite—*Twenty-Five Dollars.* And, for the 2d best, *Fifteen Dollars.*

COMPETING ESSAYS to be sent to this Office by the 1st of June next. The privilege retained by us of publishing both the successful and unsuccessful Essays, in part or in full as advisable.

The Farmer of "Willow Glen."—Our correspondent of so many years, LEVI BARTLETT, of Warner, N. H., writes us an interesting private letter, dated on Saturday, the 29th of April, and is led by the recent allusion to JOHN JOHNSTON'S age in our columns, to mention the following facts, which we take the liberty of putting in print:

"I am writing this letter on my 72d birth day. On Monday, Tuesday and Wednesday of this week I held a 'breaking-up plow,' equal to two days' time, and I do as much hard work every day and week now, as I did in the same time thirty or forty years ago. You will see by my writing that I yet carry a steady hand. I renounced ardent spirits nearly fifty years ago. * * * As you are aware, the New-England Agricultural Society will hold its Fair at Concord, N. H., the coming autumn, and if, as I trust, you are there to see, you will of course so arrange as to visit 'Willow Glen.'"

Nothing will give us greater pleasure than the acceptance of this invitation if possible. Our readers will unite their congratulations with our own, upon the vigor both of pen and hand, still shown by the Farmer of Willow Glen, who has now advanced a second stage beyond the limit of three-score and ten. He has been and is still an extensive reader, as well as a sound and careful writer, although not having formed the habit of mental application, we believe, until well advanced in middle life, or, at least, at a period when many farmers relax their interest in studious pursuits, or abandon themselves wholly to physical exertion. In this respect Mr. BARTLETT'S example is worthy of a prominent place before his brother farmers; it proves not only that the discipline and activity of the mind are by no means incompatible with unwearying industry, but also how much may be added both to the usefulness and to the continuance of life, by temperance and a diligent employment of the passing hours.

Fruit in West Jersey.—Inquiries instituted by the West Jersey Fruit Growers' Association show that there were under cultivation during the season of 1864, in the four townships of Burlington, Beverly, Chester and Cinnaminson, 488 acres of Strawberries, yielding a general average of 58½ bushels per acre, and an aggregate of 27,924 bushels, producing the sum of $164,633.60—an average value per bushel a little short of $6. "The mode of cultivation almost universally adopted, is to plant in rows 5 feet apart, and 1 foot in the row, and train the vines into beds 3½ feet wide, leaving an alley 18 inches wide between the beds. This mode has succeeded better than any other, and with the ground well prepared by deep plowing and manuring, will insure a good crop the first fruiting year. It is now a question whether it is not more profitable to renew the beds annually, than to expend much time and labor in removing weeds and preparing the beds for a second crop."

In Blackberries there are reported 189½ acres, producing 9,189 bushels of fruit—average per acre 48½ bush.—average value $4.80 per bushel; aggregate sales $44,107.20. "The crop in Beverly is reported to have been reduced about one-half, from the effects of the severe drouth that prevailed through the fruiting season. Mulching the soil heavily, when practicable, would prevent the effect of a drouth to a very great extent, on both the Blackberry and Raspberry, and the crop be much increased thereby. The New Rochelle is still ahead of all competitors, yielding large crops of the finest fruit. Some new varieties have been produced, but so far none of them appear to stand the test of field culture, and are mostly discarded. An early variety, equal in size, quality and productiveness to the New Rochelle, would be a decided acquisition, and it is reported about to make its appearance."

Raspberries, currants, gooseberries, cranberries and grapes are not so extensively cultivated. One peach orchard is mentioned containing about 50 acres, from which was marketed the past season near 13,000 baskets of fruit, at an average price of 50 cents per basket. The crop was much injured by a severe hail storm that occurred while many of the trees were loaded with fruit, and hundreds of baskets were sold at from 15 to 25 cts. per basket, which accounts for the low average of the whole crop.

Twenty-five to thirty years ago peaches were grown in this locality with but little care or cost, but a change came over them, and for many years scarcely any could be produced. Many trees that were planted out died without bearing any fruit; indeed it was thought to be an entire waste of labor to plant peach trees. But there seems reason to believe that they are again becoming a surer crop, and many are planting out new orchards.

These facts are from the Transactions of the Association for 1864, just published in pamphlet form. President, CLAYTON LIPPINCOTT, Moorestown; Corresponding Secretary, Wm. Parry, Cinnaminson.

The Tobacco Crop of the United States.—The Journal of the Society of Arts gives the following interesting table of the exports of tobacco from this country for seventy-seven years, in periods of seven years each, showing that the increase has been very large and almost continuously steady in its nature:

AVERAGE SHIPMENTS IN SEVEN YEARS.

Period.	Hhds.	
1787—1793	87,836	The first period is the seven years after the revolutionary war.
1794—1800	71,131	Second and third, during the European war.
1801—1807	81,112	
1808—1814	31,141	Fourth, includes war with Europe of 1812, preventing shipments during last two years.
1815—1821	73,358	
1822—1828	85,207	The fifth to ninth periods show a steady and constant increase during 35 years' peace.
1829—1835	85,567	
1836—1842	100,423	
1843—1849	126,267	
1850—1856	116,274	Tenth, a decline, at the end of which, in 1857, prices reached their highest point ever obtained in the three markets, in proportion to quality.
1857—1863	139,552	The last shows an average increase over every preceding one, notwithstanding that during the last three years the markets of Virginia have been closed.

Merinos at the next State Fair.—The following extract from the forthcoming Premium List of the N. Y. State Agricultural Society is given in the last number of the Journal of the Society:

No. 37. MERINO SHEEP.—In adopting a classification of Merino sheep upon the model of that established at the Hamburgh exhibition, it will be observed that the Society has largely increased the aggregate amount of the premiums offered; while these premiums are so arranged, it is believed, as to meet the wants of our wool-growers much more fully than ever before. Exhibitors will be at liberty to enter their sheep in either one of the following divisions, according to their own judgment, stating the particular division at the time of making the entry, as separate committees will examine the several divisions:

A—*Bred with especial view to Fineness of Wool.*

Best ram, two years and upwards,	$10
Second best ram, two years and upwards,	8
Best ram under two years,	10
Second best ram under two years,	8
Best pen three ewes, two years and upwards,	10
Second best, two years and upwards,	8
Best pen three ewes, under two years,	10
Second best, under two years,	8

B—*Bred with especial view to Weight of Fleece.*

Same premiums as under A.

C—*Bred with especial view to Form of Body, (or constitution) and light keeping.*

Same premiums as under A.

D—*Bred with a combined view to Fineness of Wool, Weight of Fleece and Weight of Body.*

Same premiums as under A.

Inquiries and Answers.

Bone Manure.—I have half a ton of bones; what is the best way to prepare them for use as manure—*give process?* I can get half their weight in bone meal for them—is that better, and how use it? Is well rotted chip dirt worth hauling two miles for manure? A. D. [It has long been a desideratum not yet reached, to prepare bones for manure in some good and easy way. Different experiments have been tried with various degrees of success—such as mixing them with fermenting manure—with turf moistened with liquid manure, with ashes, &c. If the bones are previously broken with a sledge, and the work is well performed, with heaps large enough to produce fermentation, all these modes appear to succeed tolerably well, but we need further experience to confirm their respective values. Half a ton of ground bones is better than a ton of unbroken ones. Chip manure, if consisting mainly of decayed vegetable matter, is not worth drawing two miles for ordinary crops; but on heavy soils as a loosener, by intermixing it, may prove very useful for the kitchen garden, in raising such crops as succeed best on light or loosened soils.]

Broom Corn.—I wish to know the amount of seed required per acre for planting dwarf broom corn, and the proper distance in the drills and rows. Also whether unfermented stable manure, worked in immediately before planting, would be beneficial? Will you or some correspondent of the Co. GENT., please answer in your valuable paper? D. H. [Broom corn is planted in rows about three feet apart, the hills about 20 inches asunder in the row, and seven or eight stalks are left in a hill. If there are fewer stalks in a hill it will be coarser. The cultivation is performed by a horse, and should be repeated a number of times. Half a peck is seed enough per acre if it is all good and evenly planted. If the seed is not so good, and much thinning is given, a larger amount of seed will be required. The soil should be rich, but if unfermented manure is worked in, it should be well pulverized and mixed with the soil by harrowing, in addition to the usual plowing. Broom corn seed being smaller, should not be planted so deep as common corn. Will some of our readers who are familiar with the cultivation of this crop, please give the details more minutely and accurately?]

Cucumber Bugs—Lunar Influence.—1. Can you tell us of anything that will destroy bugs that infest melon and cucumber vines.—2. Also if the changes of the moon have an effect upon the growth of plants; and if so, at what changes should we plant in order to obtain a good yield or more productive? A CONSTANT READER. [1. There are two ways of avoiding the ravages of cucumber bugs. One is to pass around regularly two or three times a day and pinch them with thumb and finger; and the other is to exclude them by boxes or frames, covered with netting, or by placing four bricks on edges closely around the hill, and covering with a pane of glass. The application of nostrums to repel them does not succeed. —2. The moon is entirely innocent of any detrimental influence on vegetation, and equally undeserving of any credit for promoting growth. The best time to plant is when the soil is in fine condition, and the season favorable.]

Management of Old Meadows.—What crops are the best adapted and most profitable for the first or a single year on old meadow and pasture land, so run out that it will not produce over a half ton of hay per acre? Soil mostly a heavy clay and hard pan. QUERIST. *Schoharie Co.* [There are two ways—the first and simplest is to give a good top-dressing of common manure in autumn, the earlier the better, but succeeding well any time before winter. Spread this manure finely and evenly, harrow it very early the next spring with a sharp-toothed harrow, and sow grass seed on the scarified surface before a rain. The other mode is to spread the manure in the same way, and turn the sod over to a moderate depth in spring, and plant corn. Follow the corn with barley, spring wheat or a thin crop of oats, and seed down to grass with this crop.]

The Cornell University.—In answer to the inquiries of S. C. T., Watertown: The free students provided for in the law establishing this institution, as referred to in a late number of this paper, are to receive *tuition* without charge; board and personal expenses at their own charge. Our notice as to the number of free students thus provided for, was from the law itself, and therefore correct. The following regulation is the one to which you refer: "The said free instruction shall be accorded to said students in consideration of their superior ability, and as a reward for superior scholarship in the academies and public schools of this State, and the students shall be selected as follows: The school commissioner or commissioners of each county, and the board of education of each city, or those performing the duties of such a board, shall select annually the best scholar from each academy and each public school of their respective counties or cities, as candidates for the university scholarship. The candidates thus selected in each county or city, shall meet at such time and place in each year, as the board of supervisors of the county shall appoint, to be examined by a board consisting of the school commissioner or commissioners of the county, or the said board of education of the cities, with such other persons as the supervisors shall appoint, who shall examine said candidates, and determine which of them are the best scholars, and the board of supervisors shall then select therefrom the best scholars, to the number of one for each assembly district in said county or city." Until the institution is actually in working order, which will not probably be the case for some time, we could not advise you as to the requirements for admission. The Peoples' College is not in operation.

State Agricultural Society.—*J. M. R.* A life member has free admission at the Society's Exhibitions, and can make entries without charge. He also receives the volume of Transactions. The Transactions for 1864 were ordered printed by the legislature just before the recent adjournment of that body, and will be published as soon as the pressure of other Legislative printing allows—probably in time for the next Fair in September.

Corn Fodder.—A friend writes: "At the time of the annual meeting of the New-York State Ag. Society, a gentleman described to Mr. TUCKER, Jr., his method of stacking corn fodder. I wish it might appear in the Co. GENT., as I did not quite understand it. It would be worth knowing to many." [We should be glad to receive a full description of the mode of stacking referred to, as in attempting it from memory we might fail to render it perfectly clear. If not received, however, we will do the best we can.]

Barley for Horses.—Can you or any of your readers inform me if barley is a good feed for horses, and is it injurious to breeding mares fed either during the season or while with foal? I have heard that mares would not get with foal while fed on rye—is it the case? W. R. [We have been in the practice for many years of feeding barley meal to horses—preferring to sell oats, and retain the barley for this purpose in order to prevent its manufacture into liquor. The barley is too hard without grinding, but in the form of meal is an excellent feed for working and travelling horses. Having had no experience with breeding mares, we invite answers, from our readers, to the rest of the inquiries.]

Mowing Machines.—I am going to buy a mowing machine, and very much wish some advice as to whose machine to purchase? A. W. C. *Clarion, Pa.* [We can heartily recommend any of the mowers which have been advertised in this paper. There are doubtless other machines equally good; but we know of no one so superior to all others, that we can recommend it as the best. In answer to G. W., *Suffolk, Co.*, we may state that no prizes were awarded at our last State Fair, on mowers or reapers, as no trial to test their merits was had.]

Insect Injury to Raspberry Canes.—I wish to know if there is any remedy against the insect that troubles the raspberry canes. I find the canes perforated in spots, and apparently dying, while in the pith there are maggots, or perhaps a kind of chrysalis. I doubt not some of your correspondents may know of a cure, though I have never seen it spoken of in your columns. Enclosed please find a section of cane so diseased. A remedy would doubtless be of great use to many of your readers. A READER. *Kalamazoo, Mich.* [In the Co. GENT. for June 16, 1864, p. 386, you will find a full account of the insect which does the injury to your raspberries, by DR. FITCH, with his suggestions how to prevent their operations.]

Fences.—In answer to B., Laporte, in the last paper, I would say that I have found that an open fence will stand against water or ice better than any other except a line fence. In Todd's Manual, page 87, is a cut of it which he calls a side-hill fence. I prefer here to say that three-quarters of the weight of the rail rests on the ground, which lets the top end of the rail go just half way back to the next pair of stakes; the stakes

should lean forward enough to stand at right angles with the rails. J. H.

Turnip-Rooted Chervil.—Can you inform me how to treat the seeds of the Bulbous-Rooted Chervil, to ensure germination? I last spring purchased a package of the seeds, and sowed a portion twice, but as no plants made their appearance, I wish to learn from you or your contributors, how to proceed to meet with success next time. Wm. Thorburn's Catalogue directs sowing in August or September. Do the plants then come up where the seeds have not been kept in sand, or does the long moisture, and freezing and thawing of winter, produce germination the ensuing spring? Could they not be started in hot-bed, and be brought to maturity the same season? CHAS. D. SMITH. *Goshen, N. Y.* [We copy from Burr's "Field and Garden Vegetables of America," what is there said of this plant:

Soil and Cultivation.—The seeds may be sown in drills, in October or April, in the manner of sowing the seeds of the common carrot; preference to be given to rich, mellow soil. The roots will attain their full size by the following August or September, when they should be harvested. With a little care to prevent sprouting, they may be preserved until April.

Seed.—The roots intended for seed should be set in the open ground in autumn or in spring. The seeds will ripen in August, and should be sown within a month or two of the time of ripening, or, if kept till spring, should be packed in earth or sand; for, when these precautions are neglected, they will often remain dormant in the ground throughout the year.]

The Wild Onion.—I would be glad to learn from you or any of your intelligent correspondents, the best mode for extracting wild onions which grow profusely every spring and autumn about my house. I have a beautiful slope below my house that I am bringing into rich cultivation, but it is covered with these wild onions spring and autumn. I plowed this ground twice, and have sowed oats on it, but the onions are nearly as thick as the grain. What method would be best to rid the soil of them? They are indigenous for miles round here. I sowed the field with beef salt, but it has had no effect to stay the growth of the weed. It is my intention to seed this ground down in autumn, and I mean to thoroughly enrich it, cure it, and plow it twice. Is there any other mode that you could recommend by which I could destroy these weeds without being obliged to dig them up with a spade?—which would be endless work. The vile weed Snapdragon is making fearful ravages in this neighborhood, and it seems that it cannot be banished. Where it ramifies around and about rocks, and under stone walls, it would be bootless to attempt to follow its multitudinous fibres through all their ramifications. You cannot prevent some of it from running to seed, and its fibres have such spreading tendencies that should you dig up a root with the spade, and happen to break some of its tendril and leave it in the ground, the following year it will exhibit itself in ungratifying abundance. Is there any chemical compound that one could use to exterminate this noxious fated weed; some say that the ground well sprinkled with vitriol would kill it, but I don't believe it. Give me your opinion, and tell me what to do, and it will be a source of great gratification to my mind. A SUBSCRIBER. [As a general rule, it is much easier to destroy the roots of weeds by smothering, than by attempting to dig the roots out. A root which can never form a leaf above ground will perish in a few months. Repeatedly plowing under, (which is best done with the largest double Michigan plow,) where the crop extends over fields, or turning under with a spade, on a smaller scale, will usually destroy all weeds, where the nature of the soil will admit. In other cases a coating of sawdust will in a few months destroy all the vegetable growth in the soil beneath. Very thick seeding with strong growing grasses or other crops will smother out weeds. We have seen the ox-eye daisy excluded by a heavy and dense growth of clover; and other weeds have been killed by a thick seeding of corn or sorghum for fodder. We are unable to say how far the same result might be reached with the wild onion and snapdragon, not having had much experience with these last named weeds.]

Onion Culture.—Before sowing carrots between rows of onions, will it be best to loosen the soil between the rows with a bayonet hoe? It certainly would be best for the carrots; will it hurt the onions? In raising seed from onions will it do to let them remain in the ground after harvesting the seed for a crop next year. I understand that some parties that raise onion seed for market pursue that method, gathering seed from year to year from the same roots, without taking them up—will not such seed degenerate? J. A. D. *Po'keepsie.* [We are not familiar with the details of cultivating the onion crop, but there can be no injury to any crop by loosening the soil, if the roots are not badly mutilated while the plants are growing. Will some of our readers who are familiar with raising onion seed, please answer the inquiry?]

Hen Manure.—Which is the best manner of applying hen manure to corn hills? Would harm result from using it without composting? How much would answer for one hill? Please reply in next paper. E. W. *Easton, Conn.* [Undiluted hen manure is too strong to be applied in contact with the seed. If the quantity applied is small and a thin layer of earth is interposed between them, it will succeed well. Billing's Corn planter will drop the manure if it is well pulverized, from one compartment of the hopper, while the seed drops from the other, and leaving a half inch or more of earth between them. A good way is to scatter a spoonful of the powdered manure in a hill, partly cover it and mix it, with a stroke of the hoe, and then plant the seed.]

Manure.—1. I have a large quantity of sheep and cattle manure, with a considerable quantity of straw and refuse hay intermixed, which I wish to draw out and heap for wheat this fall. How thick should it be piled, and how often should it be forked over? Would it be advisable to draw out muck fresh from the swamp and cover the heap about a foot? I have none that is seasoned.—2. What is the best material to throw in privies for the formation of poudrette?—3. Does the packing of barn-yard manure prevent its rotting? W. *Fishkill.* [1. The treatment of this pile of manure must depend somewhat upon circumstances. If there is but a small quantity of straw, it may be best to intermix with it thin layers of turf or loam to form compost. If the layers are very thin it will need no forking over till used. If there is a large quantity of straw, this will be a sufficient absorbent without other addition. In forming all compost heaps like this, the manure should be sufficiently moist, and the absorbent rather dry.—2. Pulverized charcoal is probably the best absorbing substance, but is usually difficult to obtain in large quantity. The best which is easily accessible, is coal ashes which has never been wet with rains. Its extreme dryness and earthy nature renders it a fine absorbent, and if a little is applied to a vault every day throughout the year, it not only destroys the offensive odor, but renders the contents capable of being shovelled out as easily as common sand. Loam or common soil, if perfectly dry and pulverized, is also a good absorbent.—3. The hard packing of barn-yard manure by the tread of cattle's feet, prevents the action of air and fermentation.]

Corn Planter.—I noticed in the Co. GENT. of May 4th an inquiry about Billing's Corn Planter, where it can be obtained, &c. I have used Billing's Planter for five seasons, and shall use it this season to plant nine or ten acres. I have used plaster in mine. It will drop plaster in any quantity desired, and I see nothing why it will not drop any concentrated manure that is dry. It will drop corn in hills 11, 22 or 44 inches apart, three grains or more in a hill, as desired, regulated by the size of hole in the slide, according to size of grains planted. My machine was from Oliver Ames & Son's Warehouse, Boston and Worcester, Mass. L. J.

The Horse.—There has recently been much said in your valuable paper on the best and cheapest modes of keeping and feeding cows, sheep, swine, and poultry; now will some of your contributors give us the best method and the cheapest for keeping, (and by keeping I mean feeding, caring for and using the horse.) There are in this country a great many men like myself, mechanics and men of small means, that keep horses partly from pure love of the animal, but more for the pleasure and recreation which he affords our families, and in these times of high prices it is quite desirable to discuss the cheapest manner of keeping him. CHAS. ELLIS.

Lithographs of Stock.—Messrs. Lewis & Underhill, engravers of this city, have sent us proof copies from drawings on stone by PAGE, of a number of valuable Short-Horns owned in this State, Connecticut, Canada, &c.—among them representatives of Hon. David Christie's herd, including his last year's importations—Mr. Thorne's 6th Duke and 3d Duchess of Thorndale—Mr. Sheldon's Imperial Oxford and 1st Duchess of Geneva,—also several head owned by Mr. Ashworth and Dr. Sewall of Quebec, Burdett Loomis of Connecticut, John Snell and others in Canada West. A Galloway heifer from the herd of Col. Denison, Toronto, is a nice little beastie of her kind. We have often had occasion to refer to the felicity of Mr. Page's pencil, and have never had a series of portraits from it executed more artistically, or so far as we are able to judge, with greater fidelity.

HORTICULTURAL WORK FOR JUNE.

The growth of weeds should be constantly prevented. Keep the soil perfectly clean and mellow wherever young trees grow. Mulch the surface well around newly transplanted cherry trees, to prevent the common disaster of their dying at midsummer. Mulch other young trees, where the ground cannot be cultivated to advantage; but remember that the best mulching, in most cases, is the coating of fine pulverized earth made by constant cultivation—especially where this can be accomplished by horse power.

Continue to rub off the starting shoots on the stocks of fruit trees that were budded last summer or grafted this spring, and tie up the new shoots where they need it. It is not yet too late to stake young trees in the nursery row, to render them straight.

INSECTS, &C.—Continue the destruction of the curculio, as described last month—a common reason of failure is to discontinue this attention too soon, and before all the stragglers have been killed. Watch for the borer at the foot of apple trees, and kill all that can be discovered, whether those that have already entered deeply into the wood, or such newly-hatched ones as are found only at the surface. Examine peach trees for the peach-grub; as these always remain in the bark they are easily followed with the point of a knife, and the grub will always be found at the extremity of their burrow in the bark. Cut off the twigs from plum trees as soon as they show the first indication of the black knot. If this is promptly and unremittingly attended to, trees may be kept quite clear of them, and the operation proves unsuccessful only where it is neglected or left until too late. Aphides should be destroyed when they first appear, as directed last month. Straggling caterpillar nests that have escaped attention should be thoroughly destroyed. The gooseberry and currant worm, or slug, must be very closely watched at its first appearance; it may be killed by a daily application of well powdered, water-slaked, fresh or caustic lime—or better by dusting the leaves with white hellebore—the rain washing it all off before the fruit becomes fully ripe, and thus preventing any danger in using it. Fire blight in the pear is an uncertain and formidable disease—the best remedy is to cut the affected branches far back on its very first appearance, burning or burying the limbs—and to plant out two more trees for every one that dies of this disease.

STRAWBERRY BEDS will bear larger fruit and heavier crops if kept moist in dry weather. This may be effected by regular and moderate irrigation, or by copious watering each evening. Or, on a larger scale, nearly the same result is attained by mulching well between the rows with fine cut grass or soft straw chopped about two inches long.

SHAPING THE HEADS OF YOUNG TREES.—It is now an excellent time to finish a permanent form to the heads of young trees, whether in the nursery row or in young orchards. If done in season, this work may be mainly effected by rubbing off unnecessary young shoots at their first starting, or at most, by cutting them out with a knife, so as to leave them equally distributed and without crossing. Thin out unnecessary shoots on young dwarf pears, and pinch off long shoots that are taking an undue lead of the rest. Strong growing grapevines should be well attended to; and unnecessary shoots which cause a dense mass of foliage should be taken out, so as to leave strong ones at even distances. Continue to thin fruit on young trees, where they are likely to overbear, removing all defective specimens and leaving the smoothest. Shorten back the new shoots on the blackberry, to give them a handsome form and to increase fruitfulness.

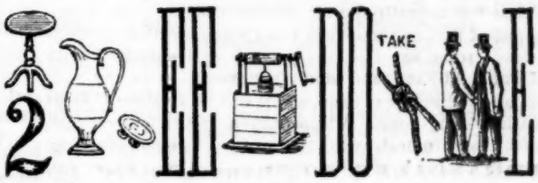
Stirring the soil and destroying weeds are the chief labors of this month.

Illustrated Rebus—No. 15.

Illustrated Rebus—No. 16.

Illustrated Rebus—No. 17.

Illustrated Rebus—No. 18.



☞ Answers next month.

ANSWERS TO ILLUSTRATED REBUSES.—No. 11. "The great enemy of the plum (plumb line) is the curculio" (cur-q *leo*, or lion.) No. 12. "Honesty is the best policy—*On S T is the best Poll (parrot) I see.* No. 13. "Those who are about to build should first estimate the whole expense." (Those who are [about] 2 bill-d. s-hood firs-t s-team-s the whole x-pense.) No. 14. "Landscape gardening and engineering is a fascinating kind of business."

Northern Farmers Emigrating.—A Boston paper says:—"A gentleman who returned a few days since from the eastern shore of Maryland, stopped at a hotel in a small town in that locality, and found thirty-six farmers from the Northern States who were there for the purpose of purchasing farms. In some cases $80 an acre was paid for farming lands in Maryland and Delaware. This is, we believe, but the advance wave of that tide of emigration which there will be not only to Delaware and Maryland but to Virginia and the other Southern States, when peace shall have been declared."

IMPORTANT ANNOUNCEMENT.

GREAT SALE OF

WATCHES, CHAINS, DIAMOND RINGS, &c.,

ONE MILLION DOLLARS' WORTH!

TO BE DISPOSED OF AT ONE DOLLAR EACH!

Without Regard to Value!

NOT TO BE PAID FOR UNTIL YOU KNOW WHAT YOU ARE TO RECEIVE!

Splendid List of Articles!

ALL TO BE SOLD AT ONE DOLLAR EACH!

300	Musical Boxes,	$20.00 to	$150.00 each.
150	Musical Boxes with bells and castinets,	200.00 to	500.00 each.
500	Silver Teapots and Coffee Urns,	20.00 to	50.00 each.
150	Silver Chafing Dishes,	30.00 to	100.00 each.
1,000	Silver Ice Pitchers,	20.00 to	50.00 each.
2,500	Silver Syrup Cups with salvers,	20.00 to	50.00 each.
5,000	Silver Goblets & Drinking Cups,	5.00 to	50.00 each.
3,000	Silver Castors,	15.00 to	50.00 each.
2,000	Silver Fruit, Card & Cake Baskets	20.00 to	50.00 each.
5,000	Dozen Silver Tea Spoons,	10.00 to	20.00 doz.
10,000	Doz. Silver Tablespoons & Forks	20.00 to	40.00 doz.
250	Gents gold hunting-case Watches	50.00 to	150.00 each.
250	Ladies' Gold & Enameled Hunting-Case Watches,	35.00 to	70.00 each.
500	Gents' Hunting-Case Silver Watches,	35.00 to	70.00 each.
200	Diamond Rings,	50.00 to	100.00 each.
5,000	Gold Vest and Neck Chains,	4.00 to	30.00 each.
3,000	Gold Oval Band Bracelets,	4.00 to	8.00 each.
5,000	Jet and Gold Bracelets,	6.00 to	10.00 each.
2,000	Chatelaine Chains and Guard Chains,	5.00 to	20.00 each.
7,000	Solitaire and Gold Brooches,	4.00 to	10.00 each.
5,000	Coral, Opal & Emerald Brooches,	9.00 to	8.00 each.
5,000	Mosaic, Jet, Lava and Florentine Ear Erops,	4.00 to	8.00 each.
7,500	Coral, Opal and Emerald Ear Drops,	4.00 to	6.00 each.
4,000	California Diamond Breast pins,	2.50 to	10.00 each.
3,000	Gold Fob and Vest Watch Keys,	2.50 to	8.00 each.
4,000	Fob and Vest Ribbon Slides,	3.00 to	10.00 each.
5,000	Sets Solitaire Sleeve Buttons, Studs, &c.,	3.00 to	8.00 each.
3,000	Gold Thimbles, Pencils, &c.,	4.00 to	6.00 each.
10,000	Miniature Lockets,	2.50 to	10.00 each.
4,000	Miniature Lockets, magic spring	10.00 to	20.00 each.
3,000	Gold Toothpicks, Crosses, &c.,	2.00 to	8.00 each.
5,000	Plain Gold Rings,	4.00 to	10.00 each.
5,000	Chased Gold Rings,	4.00 to	11.00 each.
10,000	Stone Set and Signet Rings,	2.50 to	10.00 each.
10,000	California Diamond Rings,	2.00 to	10.00 each.
7,500	Sets Ladies' Jewelry—Jet and Gold,	5.00 to	15.00 each.
6,000	Sets Ladies' Jewelry—Cameo, Pearl, Opal and other stones,	4.00 to	15.00 each.
10,000	Gold Pens, Silver Extension Holders and Pencils,	4.00 to	10.00 each.
10,000	Gold Pens and Gold Mounted Holders,	6.00 to	10.00 each.
5,000	Gold Pens and Gold Extension Holders,	15.00 to	25.00 each.
5,000	Ladies' Gilt and Jet Buckles,	5.00 to	15.00 each.
5,000	Ladies' Gilt and Jet Hair Bars and Balls,	5.00 to	10.00 each.

ARRANDALE & CO., Manufacturers' Agents,

No. 167 *Broadway, New-York City,*

Announce that all of the above list of goods will be sold for *One Dollar each.*

In consequence of the great stagnation of trade in the manufacturing districts of England, through the war having cut off the supply of cotton, a large quantity of Valuable Jewelry, originally intended for the English market, has been sent off for sale in this country, AND MUST BE SOLD AT ANY SACRIFICE! Under these circumstances, ARRANDALE & CO., acting as agents for the principal European manufacturers, have resolved upon a great *Gift Apportionment*, to be divided according to the following regulations:

Certificates of the various articles are put into envelopes indiscriminately, sealed up, and when ordered, are taken out without regard to choice, and sent by mail, thus showing no favoritism. On receipt of the certificate, you will see what you are to have, and then it is at your option to send the dollar and take the article or not. Purchasers may thus obtain a Gold Watch, Diamond Ring, or any set of Jewelry on our list for ONE DOLLAR.

Send 25 Cents for Certificate.

In all transactions by mail, we shall charge for forwarding the Certificates, paying postage and doing the business, 25 cts. each, which must be enclosed when the Certificate is sent for. Five Certificates will be sent for $1, eleven for $2, thirty for $5, sixty-five for $10, one hundred for $15.

What the "Press" say of us.

GREAT GIFT DISTRIBUTION.—A rare opportunity is offered for obtaining watches, chains, diamond rings, silverware, etc., by Messrs. Arrandale & Co., at No. 167 Broadway. They have an immense stock of articles, varying in value, and all are offered at one dollar each. The distribution is very fairly done—you agree to take a certificate of a certain article enclosed in an envelope, and are not required to pay your dollar unless you are satisfied with the article, which will certainly be worth more than that amount, and may be $50 or $100. An excellent mode this of investing a dollar.—*Sunday Times, N. Y. City, February* 19, 1865.

Messrs. Arrandale & Co. have long been personally known to us, and we believe them to be every way worthy of public confidence.—*N. Y. Scottish American Journal, June* 11, 1864.

We have inspected, at the office of Arrandale & Co.'s Agency for European Manufacturing Jewellers, a large assortment of fashionable and valuable Jewelry of the newest patterns. We also noticed a large quantity of silver plate, and understand that the whole of these newly imported articles are to be disposed of on a novel principle, giving great advantages to buyers, and affording extensive employment to agents. We know the firm in question to be very respectable and thoroughly worthy of public confidence, and recommend our friends to read their advertisement.—*N. Y. Albion, September* 3, 1864.

By Messrs. Arrandale & Co.'s arrangement, the advantages must be on the side of the customer, for he has everything to gain and nothing comparatively to lose. He knows what he will get for his dollar beforehand, and he need not send it if he is not satisfied.—*N. Y. Weekly News, August* 6, 1864.

EMPLOYMENT FOR LADIES.—The most eligible and profitable employment we have heard of for ladies, is the sale of Certificates for the Great Distribution of Arrandale & Co. A lady of our acquaintance has been very successful in this way, not only in filling her own purse, but also in doing a good turn to those to whom she sold the Certificates, as will be seen by our advertising columns. Gentlemen can also be thus engaged.—*N. Y. Sunday Mercury, August* 14, 1864.

In our columns the reader will find an advertisement of Arrandale & Co.'s Gift Distribution of watches, jewelry and silverware. In payment of that advertisement we received several sets of the jewelry advertised, and we are warranted in saying that both in finish and quality, they exceeded our expectations. They turned out to be just what they had been represented.—*True Democrat, (Lewiston,) Aug.* 17, 1864.

Agents.—We want agents in every regiment and in every town and county in the country, and those acting as such will be allowed 10 cents on every certificate ordered by them, provided their remittance amounts to one dollar. Agents will collect 25 cents for every certificate, and remit 15 cents to us, either in cash or postage stamps.

ARRANDALE & CO.,

May 18—w&m1t. **167 Broadway, New-York.**

$75 PER MONTH and all expenses paid to Sewing Machine Agents. Address

May 18—w1tm2t. D. B. HERRINGTON & CO., Detroit.

IMPROVED SUFFOLK SWINE.

The Best Blood now in America,

Both sexes and all ages. Small pigs $20 to $25 per pair. For pedigree or other information, send stamped envelope to

May 18—w2tm1t. WM. STARK, Manchester, N. H.

DRAIN TILE MACHINES.—The undersigned having relinquished the business of the manufacture of Drain Tiles, will dispose of their machines at a low rate for cash. Address C. & W. McCAMMON,

April 20—wtfm1t. Albany, N. Y.

BOARDMAN & GRAY'S

Patent Improved

Insulated Iron Rim and Frame

PIANO FORTES.

MANUFACTURED BY

WILLIAM McCAMMON

(Successor to BOARDMAN, GRAY & CO.,)

Albany, N. Y.

☞ SEND FOR ILLUSTRATED PRICE LIST. Mar 23—w&m.

REMOVAL OF THE
ALBANY
AGRICULTURAL WAREHOUSE & SEED STORE
From Nos. 62 & 64 State-St., (up stairs) to
Nos 14 & 16 Green-St., Ground Floor,
NEAR CORNER OF STATE-STREET,
Albany, N. Y.,
HORACE L. EMERY, Sole Proprietor.

The subscriber takes pleasure in announcing that after an absence from the city and country of nearly two years he has returned and assumed the entire interest in and to the Stock, Business and Interests of the ALBANY AGRICULTURAL WORKS, situated on Hamilton, Liberty and Union Streets, and also of the AGRICULTURAL WAREHOUSE AND SEED STORE on State Street, and continues the business of the same solely upon his individual account and management. He has greatly improved and increased his facilities for manufacturing, and is better than ever prepared to supply all articles in his line, of a superior quality and upon the most reasonable terms.

He has also REMOVED the entire Stock and Fixtures of the WAREHOUSE AND SEED STORE from the old stand in State-Street, up stairs, to Nos. 14 & 16 GREEN-STREET, and replenished the stock of Implements and Seeds, with the best of its kind, all of which he offers to the public upon the most reasonable terms.

Having been the pioneer in the business of introducing, manufacturing and selling of improved Agricultural Machinery and Implements and Seeds in this city, and devoted twenty years here to the business, he solicits a continuance of the liberal patronage heretofore enjoyed by him and his successors in these Works and business. HORACE L. EMERY,

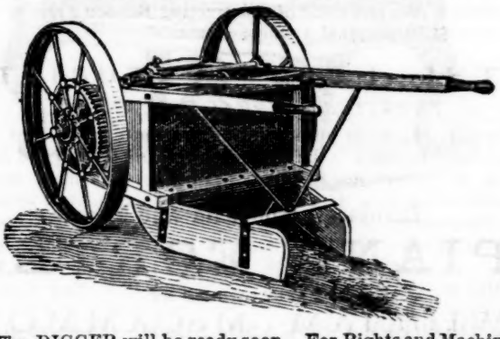
Sole Proprietor and Manager of the Albany Agricultural Works, Warehouse and Seed Store, Hamilton, corner Liberty and Union streets, and Nos. 14 and 16 Green street, near corner State-Street, Albany, N. Y. May 11—w8tm2t.

SUFFOLK PIGS.—Six weeks old; per pair, $25; single ones, $15, boxed and shipped, for sale by
T. L. HARISON,
April 6—w8tm2t. Morley, St. Lawrence Co., N. Y.

DO YOU WANT WHISKERS OR MOUSTACHES? Our Grecian Compound will force them to grow on the smoothest face or chin, or hair on bald heads, in six weeks. Price $1. Sent by mail anywhere, closely sealed, on receipt of price. Address WARNER & CO.,
April 20—w&m3mo. Box 138, Brooklyn, N. Y.

CAYUGA CHIEF
MOWER AND REAPER,
WITH YOUNG'S IMPROVEMENTS,
FOR 1865.
Manufactured ONLY by
BARBER, SHELDON & CO.,
AUBURN N. Y.
Examine closely before buying, as there are others building the Cayuga Chief without *Young's Improvements.*
Send for Descriptive Catalogue.
BARBER, SHELDON & CO.,
March 16—w4mos. Auburn, N. Y.

ASPINWALL'S
Patent Potato Planter.



The DIGGER will be ready soon. For Rights and Machines address L. AUGUSTUS ASPINWALL,
April 6—wtf. Ireland's Corners, Albany Co., N. Y.

FACT, NOT FICTION—
Actual Experience.
TEN ACRES ENOUGH:
A PRATIAL TREATISE
OR HOW
A SMALL FARM
MAY BE MADE TO
SUPPORT A VERY LARGE FAMILY

"Let every one who purposes removal into the country, buy TEN ACRES ENOUGH."—[Extract from Home Journal.

1 vol. 12mo.—Cloth Binding, $1.50.

Mailed free, on receipt of price by LUTHER TUCKER & SON,
June 16—wtf. 395 Broadway, Albany, N. Y.

NEW-YORK STATE TILE WORKS,
NEAR THE CORNER OF
LARK & LYDIUS STREETS, ALBANY, N. Y.,
WM. M. BENDER, Proprietor. | **GEORGE JACKSON,** Superintendent.

The Subscriber is prepared to furnish, Round, Sole and Horse Shoe Tile, over one foot in length, by the cargo, or in the smallest quantity on demand, at prices that he will defy any other parties to undersell him. He will warrant his tile hard burnt, and to fit close at the joints, and altogether superior to any made in the United States.

All tile delivered on board of cars or boat in this city free of charge. Price list sent on application.

Also DRAINING TILE MACHINES for sale of the latest improved patterns. For further particulars address as above
April 6—w&m.

BUY THE BEST.
Strength, Durability, and
HALSTED'S
PAT. IMPROVED
HORSE HAY FORK.

Price with Pulleys and Hooks, $14.
Warranted in every respect. Send for Circular. Town, County and State Rights for Sale. Agents wanted. Address
A. M. HALSTED,
March 23—weow8t. 67 Pearl-Street, New-York.

EGGS FOR SETTING FROM
Thorough-Blood Stock.

Brahma, Black Spanish and Black Hamburgh hens bred with Penciled Hamburgh cock, $1.50 for 13 eggs. Bramah (a selection of 8 fowls from out of 400,) $2.50 for 13 eggs. Black Spanish, (extra, from imported stock,) $2 50 for 13 eggs. Golden Penciled Hamburghs, imported stock, $2.50 per dozen. Black Breasted Red Game fowl, from imported stock, $2.50 per dozen. Three or more of the above kind sent to one address, 12½ per cent. discount will be made. Where eggs can be sent without packing 12 cents per dozen discount.

The above fowls are warranted to be second to none in New-England, they having taken the first premium whenever they have been offered on exhibition. Address I. K. FELCH,
March 23—eow6t. Natick, Mass.

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May 25—w1t. Fabius, Onondaga Co., N. Y.

GARNET CHILI POTATOES.—We have for sale a few bushels of this unrivaled potato for seed, produces 300 bushels of excellent potatoes per acre. Price $1.50 per bushel, or $4 per barrel, delivered to Express Company. Address JAMES EDGERTON,
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No. 4. Wood lot adjoining No. 2, same distance from Alexandria and Washington; 300 acres, 40 acres meadow, 100 arable land, 100 in upland pasture, eight years sod, and 25 in garden, residue wood. Excellent water and all necessary buildings. Refer for terms, &c., by letter. Address COL. WM. HENRY DAINGERFIELD, Wood Cot, near Washington, or in person on the premises. June 1—w1tm2t.

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B. M. WATSON,
May 25—w6tm3t. Old Colony Nurseries, Plymouth, Mass.

THE LITTLE GIANT MICROSCOPE—Is a neat little imported instrument, of high magnifying power, for the examination of living or dead insects, small flowers, seeds, minerals, skin, &c., and is very simple, requires no focal adjustment, and is so compact that it can be carried in the pocket or attached to a watch chain. Sent postpaid to any part of the world on receipt of one dollar. Liberal terms by the dozen. Address GEORGE MEAD,
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Threshing Machine.

Persons intending to purchase a Threshing Machine will do well to send for a circular of the superior machine manufactured by R. & M. HARDER, Cobleskill, Schoharie Co., N. Y. See their advertisement in last week's Country Gentleman.
May 25—weow5t.

A NEW GOODRICH SEEDLING POTATO.—Since planting we have decided to spare a few pecks of a new seedling, named the HARRISON; it is large, white, highly productive, unusually solid—a very promising winter sort.

Price, $2 per Peck.

Can also spare a few more Early Goodrich, Calico and Gleason at the old prices. D. S. HEFFRON, Agent,
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Graperies and Horticultural Buildings,
With sixty designs and plans of all classes of structures, for growing plants or ripening fruit under glass. Price $1.50, postpaid, to any address.

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Woodward's Country Homes.
A new practical and original work on Rural Architecture, with 122 designs and plans of country houses, stables and outbuildings, &c., and mode of constructing Balloon Frames.
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TWENTIETH ANNUAL VOLUME, 1865.
Monthly. $2.50 per annum. Two specimen copies sent for 25 cents. Devoted to the Vineyard, Orchard, Garden and Nursery, to Culture under Glass, Landscape Gardening, Rural Architecture, &c. All articles from the best practical writers in the country. Agricultural, Horticultural and Architectural Books for sale. Send red stamp for Priced Catalogue.
GEO. E. & F. W. WOODWARD, Publishers,
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YOKOHAMA SQUASH SEED.—Pure seed of this famous squash sent postpaid, 25 seeds for 15 cents. Address JAMES EDGERTON,
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